OWNERS HANDBOOK

CAPRICE

SERIES II

De VILLE

Vehicle Identification Certificate

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng No. .....

Selling Dealer's Stamp & Signature .....

Date of Acquisition .....

Refer to page 125 for Pre-Delivery Check and page 126 for Delivery Certificate.

92022442 AUGUST 1983

Message from GMH

Thank you for choosing Holden. Your new vehicle is the product of many years research and planning. We are very pleased and proud of the result — as we are sure you will be. To understand your new vehicle fully, please take the time to read through this handbook and keep it in the vehicle at all times for quick reference. Full understanding of your vehicle's performance, warranty and maintenance procedures will add greatly to your motoring enjoyment.

Accidents:

See inside back cover for important information on what to do at the scene of an accident. (Includes giving medical assistance.)

This handbook contains important information necessary for the good performance and maintenance of the vehicle. Please leave it in the vehicle at the time of resale to assist the new owner.

GMH

New Vehicle Warranty

GENERAL MOTORS-HOLDEN'S SALES PTY. LIMITED

(Incorporated in Victoria)

New Vehicle Warranty

GENERAL MOTORS-HOLDEN'S SALES PTY. LTD. HEREBY WARRANTS THAT IT WILL MAKE GOOD, WITHOUT CHARGE, ANY DEFECT WHICH APPEARS IN THE VEHICLE IDENTIFIED IN THE VEHICLE IDENTIFICATION CERTIFICATE FOUND ON THE INSIDE OF THE FRONT COVER

Provided

1. the defect has been notified to an authorised GMH Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km, or:
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a Demonstrator vehicle within 12 months of the date when it was first placed into service by the Dealer)

   whichever comes first, and

2. the vehicle has been returned to an authorised GMH Dealer or Service Dealer

And

3. the Dealer has determined that the defect complained of *is* one of material or workmanship and *is not* caused by:
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc. or by neglect
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) alteration or modification of the vehicle
   (g) the fitting of parts or accessories not marketed by GMH
   (h) any work carried out on the vehicle by someone other than an authorised GMH Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by GMH Sales) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF GMH SALES, BY REPLACEMENT.

Excluded from this Warranty are

- defects in tyres or tubes (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filters, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

Notice to Customers

No GMH dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality performance characteristics descriptions or fitness for any purpose of any GMH product or in connection with the supply of any GMH product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by General Motors-Holden's Limited or General Motors-Holden's Sales Pty. Ltd. in its published sales literature, and neither company accepts any liability for any such unauthorised action.

General Motors-Holden's Limited and General Motors-Holden's Sales Pty. Ltd. have franchised dealers in many parts of Australia for the sale of service parts and the provision of service to owners of GMH's products. Every endeavour is made to ensure that such dealers carry adequate stocks of service parts, and are equipped to provide satisfactory service, but neither General Motors-Holden's Ltd. nor General Motors-Holden's Sales Pty. Ltd. makes any promise that such parts or service facilities will be available, or available at any specific location or any particular time.

GMH Parts and Accessories Warranty

General Motors-Holden's Limited warrants in respect of GMH parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such GMH parts and accessories within 3 months from the date of acquisition or in the case of a GMH part or accessory which has been installed in a vehicle by a GMH Dealer or Service Dealer before such vehicle has travelled a distance of 6,500 kms from the date of installation, whichever first occurs.

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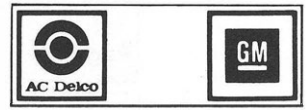
HOLDEN GMH

When it comes to servicing, remember that a GMH Dealer has the trained personnel and specialised equipment to correctly service your vehicle.

For the proper maintenance and performance of the vehicle use only quality GM and AC Delco parts which are identified by one of these trademarks.

The use of parts, additives or treatments other than those marketed by GM or AC Delco may be detrimental to your vehicle and may void your New Vehicle Warranty.



All illustrations and specifications contained in this handbook are based on the latest product information available at time of publication approval. The right is reserved to make changes, at any time, without notice, in prices, colours, materials, equipment, specifications and models, and to discontinue models. Check with your Holden Dealer for complete information.

Section 1:

Getting to Know Your Vehicle

Running In

These days, there's no need to follow a rigid running-in schedule. However, if you observe a few simple points during the first few hundred kilometres of driving, you will add to the vehicle's future performance and economy.

For the first 500 kilometres, don't go over 80 km/h. Up to 1500 kilometres, avoid driving at any one speed — either slow or fast — for any length of time.

Include some higher speeds in your driving. This helps prolong the life of parts and helps with fuel and oil economy. But never drive at high speed until the engine is thoroughly warm.

Full throttle acceleration is not recommended before the car has done 3000 kilometres.

For the first 500 kilometres, heavy braking should be avoided, except in the case of emergency, since brake misuse during this period could impair future braking efficiency.

Fuel Economy Tips

How you drive, and where you drive have an effect on your fuel economy. The following pointers will help reduce your fuel bill.

Avoid:

Hard Acceleration.

Excess Loading Weight.

Stop-Start Driving. Plan your trips ahead.

Excessive Speed. You will save on your fuel bill by driving at 80 km/h instead of 100 km/h.

ENGINE IDLING:
If you have to wait for more than a few minutes, turning off the engine will conserve fuel.

HARD DRIVING IN BUILT UP AREAS:
Energy is wasted as heat when braking. Hard driving up to stopping points is wasting fuel, as energy in the form of fuel is needed to accelerate again.

AIR CONDITIONER OPERATION:
By using the vent setting, most of the advantages of the integrated air conditioning system can be obtained in cool and moderate temperature conditions while at the same time using the least amount of engine power.

Check:

Air Cleaner Element. A dirty air cleaner element reduces engine efficiency. Replace it at the required intervals.

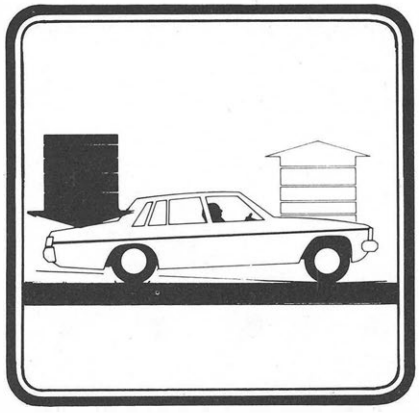
Engine Tuning. An out of tune engine cannot give good fuel economy.

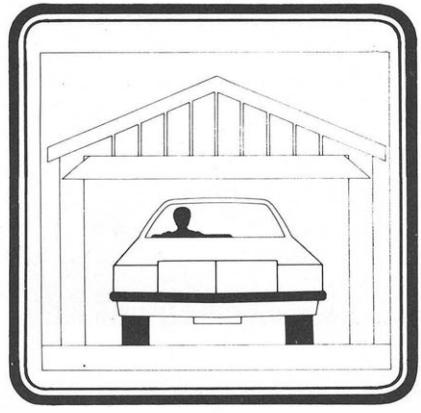
Tyre Inflation. Under inflation wastes fuel.

Wheel Alignment. Incorrect alignment makes the front wheels drag and puts an extra load on your engine.

In order to achieve optimum fuel economy, it is essential to maintain your car in peak mechanical condition. Observe the service schedule set out in this Handbook, and have your car tuned regularly.

- Ensure that the engine is idling at the recommended speed — fast idling wastes fuel.
- Overloading the rear suspension upsets the aerodynamics of your vehicle by raising the front of the car. The resultant drag increase will contribute to increased fuel consumption.
- Faulty wheel alignment and underinflated tyres create rolling resistance and contribute to increased fuel consumption. Radial tyres produce less resistance than cross-ply tyres and marginally improve fuel economy.
- Long warm-ups in the garage or drive-way are unnecessary and waste fuel. A car takes approximately twenty minutes to achieve its normal operating temperature — and it does this most efficiently on the road.
- Avoid full-throttle acceleration
- Use the accelerator evenly — avoid sudden, jerky movements — they're certain fuel wasters.
- In the interests of efficient fuel consumption, it is desirable to achieve top gear operation as early as possible. Under no circumstances should you force the engine to labour in top gear.
- Driving with windows open affects the aerodynamics of the vehicle, increasing drag and contributing to poor fuel economy.



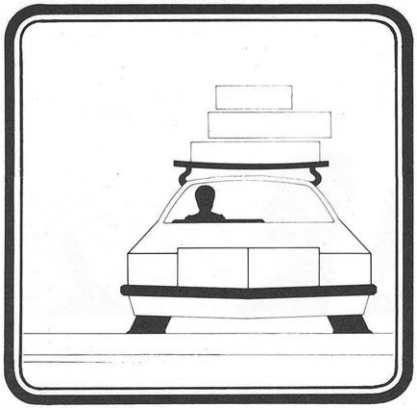


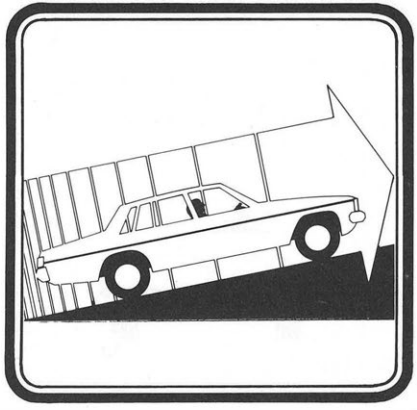
- When driving into a head wind, slow down — the air resistance at higher speeds means higher fuel consumption.
- When loading your car's roof rack try to keep the load as low as possible — thereby minimising wind drag which contributes to higher fuel consumption.

- Efficient fuel ignition can only be achieved when points, plugs and timing gear are in good condition and adjusted correctly.

- Avoid driving with your left foot resting on the clutch or brake pedal.
- When driving up a hill try to maintain the same pressure on the accelerator pedal — don't speed up.

- The shortest way to your destination may not be necessarily the most economical way. Pre-plan your trips, taking into account the location and number of stop signs and traffic lights. Select the route with the least number of obstructions to the traffic flow. It may not be the shortest way but it's probably the quickest — and you will save fuel.





Maintenance for Safety

The following items require regular attention in the interests of safety. If anything goes wrong with any one of them, an authorised GMH Dealer will help you.

- BRAKES.
- HORN.
- ALL LIGHTS.
- REAR VISION MIRRORS.
- SEAT BELTS.
- GLASS AREAS.
- EXHAUST SYSTEM.
- STEERING & WHEEL ALIGNMENT.
- WINDSHIELD WIPERS & WASHERS.
- TYRES.
- SUSPENSION.

Safety Checklist

Follow these simple steps before driving your Vehicle. They will help make your motoring safer and more enjoyable.

Before getting in

Check that the windows, mirrors and lights are clean.

Check the tyre inflation.

If you intend to reverse, check that the area behind you is clear.

Before driving off

Be sure you understand your vehicle and know how to operate it safely.

Close and lock all doors.

Position your seat for comfortable driving.

Adjust all rear vision mirrors.

FASTEN SEAT BELTS.

Check that the warning indicators light up when you turn the key to start the engine.

Release the parking brake.

Caution: Never leave loose articles inside the car — they may become dangerous projectiles if you have a collision or stop suddenly.

Safe Driving Hints

Important

These items are listed as a safety reminder to you. The appropriate section of this Handbook should be referred to for a more detailed explanation.

Carbon Monoxide

Avoid inhaling exhaust gases because they contain carbon monoxide, which is colourless and odourless. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal.

Seat Belts

Various road laws require the wearing of seat belts. It is important that the habit of using these should be developed by yourself and others in the vehicle. In the interest of safety seat belts should be checked regularly. Your Dealer will inspect and check the belts for you as part of the normal Maintenance Service. Never attempt to modify or change the seat belt away from the original specification as this will affect the operation of the belts and reduce their effectiveness, in preventing injury, in an accident.

Anti-Theft Ignition Steering Lock

DO NOT turn the ignition switch away from the ON position while the vehicle is in motion as this renders ineffective any power assisted equipment fitted to your vehicle.

Never remove the key while the vehicle is in motion **as this will lock the steering of the vehicle and render it inoperative.**

Brakes

Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.

Brake pedal travel should not be obstructed by improper floor mats or other interfering material under the pedal.

Power Assisted Brake

Power assisted brakes utilise vacuum from the engine when it is running. Never let the vehicle run down steep grades without the engine running. Never coast with the engine switched off.

Tyre Traction

A decrease in driving, cornering, and braking traction occurs when water, snow, ice, gravel, or other material is on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

Cooling System

If the cooling system is hot, the radiator cap must not be removed quickly — it should be rotated slowly to the first stop, which permits the pressure to release slowly through the overflow pipe. It is advisable to cover the cap, with an old rag or cloth to avoid possible scalding.

Loose Articles

Do not leave a loose load or articles inside the passenger compartment. Stow articles in the luggage compartment and tie down if necessary.

Petrol Fumes

Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

Keys and Locks

Your vehicle is fitted with a two key locking system which provides security for personal valuables when parking in car parks or similar areas where locking of the vehicle is not permitted.

Master Key

Master key (plastic head) is retained by the driver and operates all locks on the vehicle.

Service Key

Service key (square head) is left with the vehicle when it is parked in those areas described above and only operates the door locks and ignition switch which enables the vehicle to be moved if required but does not allow entry to the glove or luggage compartments.

Opening Doors

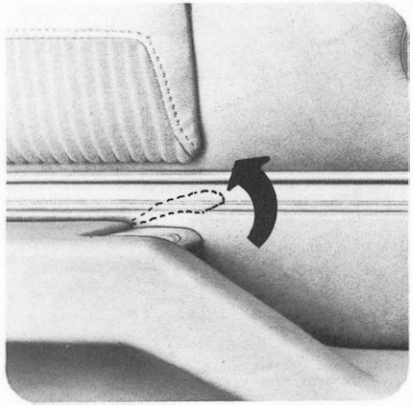
Both front doors can be unlocked with the key from the outside by turning the key clockwise, before lifting the handle to open the door.

Note: Doors have a free-wheeling lock mechanism. This means that the doors cannot be opened from the outside unless the key is used or inside unless the locking button is raised.

Locking Doors

Inside — To lock, push down the inside locking button. To unlock lift the button.

Outside — With the door open, push down the the inside locking button then shut the door. Do not slam the door or push the window areas.



A Hint

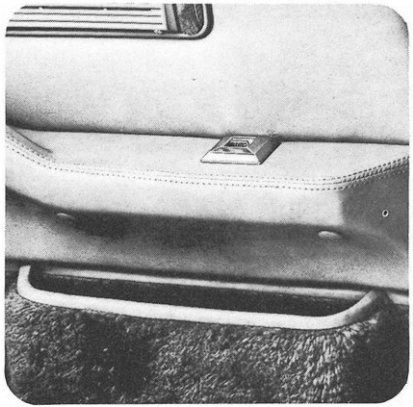
Door locks may ice up in cold weather. If this happens, warm the key before you insert it. You may have to do this several times.

The key code number is stamped on the PLASTIC KEY HEAD. Before placing the key on your key ring record the code number and place it in a safe place so that if the key is lost duplicates can be ordered from any GMH Dealer by quoting the key code number.

Electric Door Lock (where fitted)

All doors lock and unlock simultaneously when the drivers door or the front passenger's door is locked or unlocked with the inside locking switch.

Door locks may be operated manually in the conventional manner. The system has an overload safety control which may render it unoperational. This system resets after a few minutes.

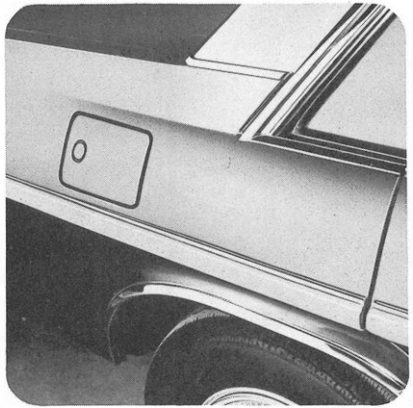


Fuel Door Lock

Lock or unlock with the master key. The door may be left unlocked for convenience. To leave the door unlocked turn the key anti-clockwise and remove it at this fully rotated position.

Luggage compartment

To unlock, turn the key clockwise.



The lid opens automatically. The compartment locks automatically when pushed shut.

Glove compartment

To lock, insert the key, rotate clockwise one half of a turn and then withdraw.

To unlock, insert the key and rotate anti-clockwise one half of a turn.

To open, squeeze the two slides of the catch together and pull towards you. To close, push lid firmly back into place. This will engage the catch.

Rear 'Child Proof' Door

This lock is on both rear doors. To operate it raise the lever as far as it will go and close the doors. The door cannot be opened from inside, regardless of the locking position. To unlock, open the door from outside and slide the lever back down.

Electromagnetic Lock Release Caprice

In addition to the mechanical trunk lock release, the trunk lid is provided with an electromagnetic release system.

The trunk lock may be released by depressing the push button switch located inside the glove compartment. On the DeVille models (when fitted as optional equipment) the release push-button is located to the left of the fuse panel cover.

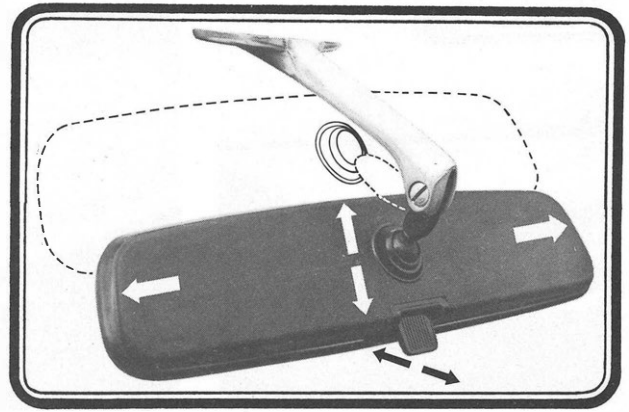
Rear Vision Mirrors

Inside Mirror

This is shatter-resistant, and mounted in such a way that it can be knocked out in case of accident. This lowers the chance of injury.

An anti-glare control lever on the lower edge of the mirror enables an anti-glare reflector to be used during night driving. This reduces headlamp glare from following vehicles.

During normal daylight operation, the lever should be set forward. To reduce glare at night, move the lever backwards.



Outside Mirrors (DeVille)

The external rear vision mirrors, which are mounted on the outside drivers door and front passengers door, can both be adjusted by using interior controls.

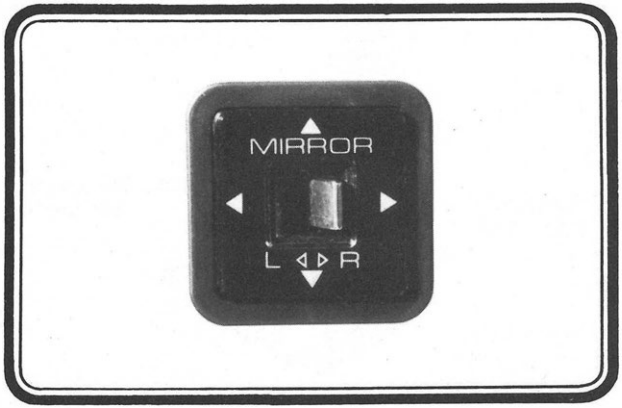
A control located on the inside of the drivers door adjusts the angle of the drivers side outside mirror.

The passengers side external mirror is adjusted by using the remote control lever near the centre of the instrument panel.

The change of angle of the mirrors is in the same direction as the control movement. Both mirrors should be set for the drivers use, and should be adjusted for the normal driving position.

Outside Mirrors (Caprice)

These mirrors are identical to those fitted to DeVille models with the exception that they are operated electrically by a remote control switch mounted on the centre console rearward of the T-bar shift lever. Left/Right mirror selection is by means of a toggle switch located centrally within the main switch. Mirror adjustment is achieved by depressing the main 'multi position switch in the direction indicated by the arrows. To operate the mirrors the ignition key should be in the 'ACC' or 'ON' position.



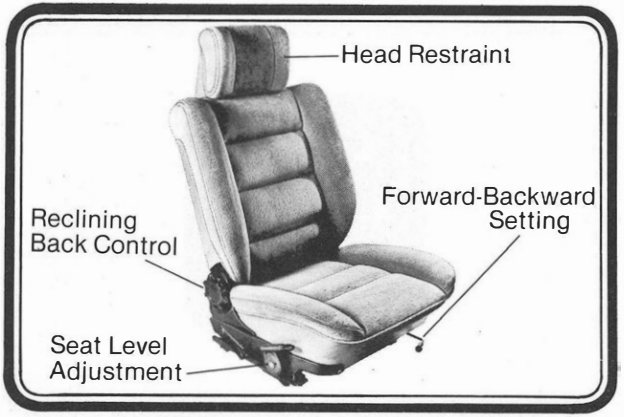
Seat Adjustment

Front Seat Forward and Backward Setting Bucket Seat

Rotate the lever at the front of the seat upwards then slide the seat to the desired position. Release the lever. Try to move the seat back and forth to check that the catch is fully engaged. Adjustment should not be made when the vehicle is moving.

Bench Seat (where fitted)

This seat can be unlocked at the front by moving the locking lever (positioned at the lower front right hand corner) across to the right, then apply body pressure to move the seat either backward or forward as required. The seat mechanism will lock again when the locking lever is released. To check that the locks have fully engaged, try to move the seat backwards or forwards.



Reclining Back Control (Bucket Seat)

The reclining back is controlled by a large toothed wheel at the bottom of the outer side of the seat. By turning the wheel, the reclining position of the seat can be changed through a large angle. The seat back will move in the same direction as the top of the wheel.

CAUTION: To avoid reducing the effectiveness of seat belts it is recommended that reclining seats be used in no more than a semi-reclined position when the vehicle is moving.

Bucket Seat Level Adjustment

The driver's seat level is adjustable by extending the telescopic lever on the seat outer side and then moving it up or down.

Head-Restraint

This safety feature is not intended to be used as a headrest. It is solely for the reduction of possible injury that may result from a whip-lash neck movement following a vehicle collision.

Seat Belts

Study this section carefully. It is important that you understand how to correctly wear a seat belt. You should also ensure that all occupants wear a properly adjusted seat belt whenever the vehicle is moving.

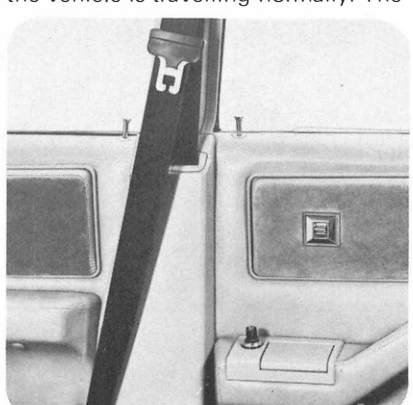
Retractor Belts

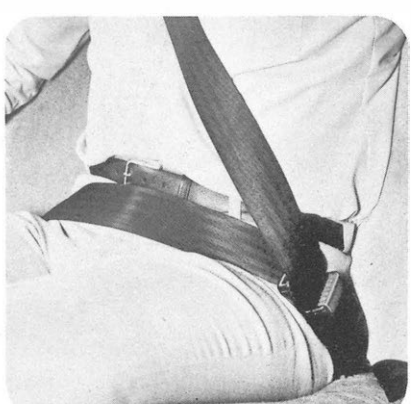
To put on a retractor seat belt, pull it across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". After fastening, settle the belt by running your hand under the belt, starting at the hip, going across to the buckle, then up under the sash.

The lap section should be worn **as low as possible on your hips**, not on your waist. Make sure the sash and lap sections of the seat belt are free from twists and are fitting firmly. Any extra belt lengths should retract automatically when you run your hand under it.

The emergency — locking retractor belt allows you to move freely while the vehicle is travelling normally. The belt will lock immediately on fast braking, impact with a solid object or any quick action.

To release all belts: press the release button at the end of the buckle and allow the belt to retract. Check that it fully retracts without twisting or turning.





Lap-Type Belts

To Adjust: Settle yourself comfortably. Bring the metal tongue across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". Make sure the belt is fitting firmly across the lower hip area and not across your waist.

To Shorten: Tilt the tongue adjuster and pull the belt through the belt adjuster.

To Lengthen: Tilt the tongue adjuster and pull the belt from just below the finger grip bar.

Belt Storage

When not in use keep the lap belts fastened.

Safety Hints

Check seat belts regularly. Your GMH Dealer will do this as part of normal Guardian Maintenance.

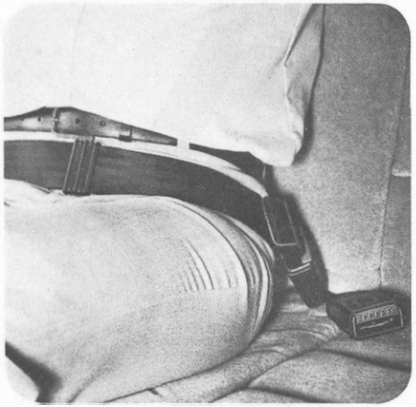
Adjust seat belts firmly. A loose belt is no help at all. Seat belts must be replaced if they have been worn during a severe impact — even if there's no obvious damage.

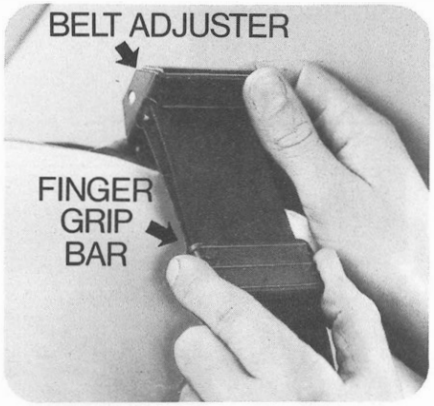
Don't wear a belt with twisted straps.

Don't ever put a seat belt around a child being nursed on the lap.

Care of Seat Belts

Clean belts only with a solution of mild soap and lukewarm water. Never use bleach. Replace the belts if they become frayed or damaged.





AUSTRALIAN DESIGN RULES: WARNING

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

Care of Seat Belts

Clean belts only with a solution of mild soap and lukewarm water. Never use bleach. Replace the belts if they become frayed or damaged.

Infant & Child Restraints

Your vehicle is provided with anchorage points for child restraints — see diagram — and your GMH Dealer will be more than happy to advise you about the various types of child restraint available.

Children should be belted in at all times.

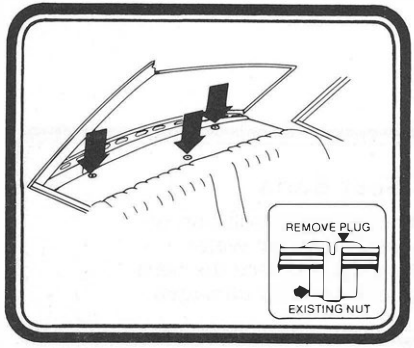
Never use a child restraint as an adult seat belt — it will not take the extra weight.

Anchorage points are located on the rear window ledge. Remove the plugs and install child restraints with the anchor bolts.

INFANTS UNABLE TO SIT BY THEMSELVES should be carried in a padded, covered bassinet placed **across** the back seat. Strap this in tightly with the two regular seat belts.

CHILDREN ABLE TO SIT UP should be belted with the regular seat belt. If the sash part rubs on the child's neck or face, move the child towards the centre of the vehicle. If this doesn't work, the child should be lap-belted on the back seat. NEVER allow a child to stand or kneel on any seat.

Warning: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.



The GM Child Love Seat is designed for children weighing 9 to 19 kg, up to 1 metre in height, who are able to sit up alone.
Shoulder strap adjustment
'Press' release buckle

Window Controls

Manual

All door windows are lowered or raised by using the low profile winders which are fitted with safety designed PVC knobs.

Power (where fitted)

Where this option is fitted, the door window operating motors are connected through the ignition switch so that they cannot be operated unless the key is in the ON position.

A master switch group for the windows is fitted in the console or the driver's door arm rest (with bench seat option). Both rear door windows can also be operated by individual switches located in the doors.

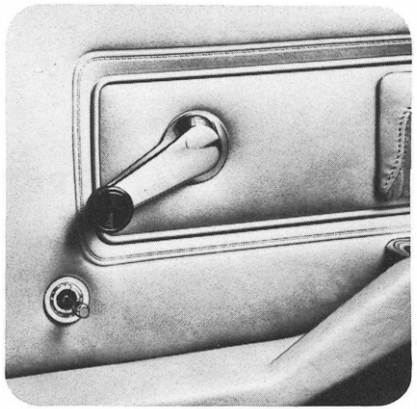
Power Switch Operation

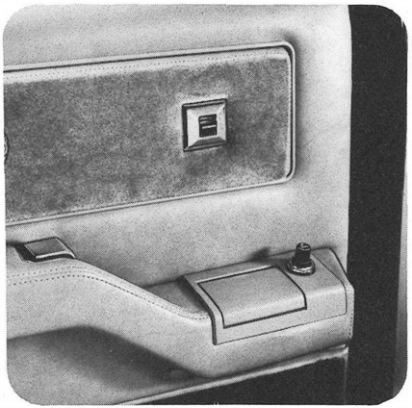
Fitted in Console or Driver's Door Armrest

To Raise — Push forwards — towards front.
To Lower — Push backwards — towards rear.

Fitted in Trim Panels

To Raise — Push upwards — towards window.
To Lower — Push downwards — towards floor.





Section 2:

Starting and Operating

EXHAUST GAS WARNING
Carbon Monoxide Poisoning

Exhaust gases contain carbon monoxide which can cause unconsciousness and even death.

You could breathe the gases in if the exhaust system on your vehicle is faulty.

Have the vehicle checked thoroughly each time it is serviced. If you notice a change in exhaust noise, or if the back of your vehicle is damaged, take it to your GMH dealer for inspection.

If you must drive with a faulty exhaust, drive with all the windows open.

Danger

Don't ever sit in a parked vehicle with the engine running for any length of time. And don't leave the kids in there either.

Don't run the engine in the garage any more than necessary to move the vehicle.

If this should be necessary — say for an engine check — ventilate the vehicle by closing the heat or flow through ventilation outlets and turning the fan onto 3.

If you must travel with the boot open, close all windows, fully open the ventilation system and do not exceed 50 km/h unless necessary.

Exhaust Pollution

Your Statesman is equipped with several features designed to minimise exhaust pollution.

Steering Column Controls

Ignition Lock

This is an anti-theft lock and is on the right side of the steering column. It has five positions.

ACC (1st Back from Lock) — Permits operation of accessories when the engine is not running. To engage, push the key in and turn toward you (anti-clockwise).

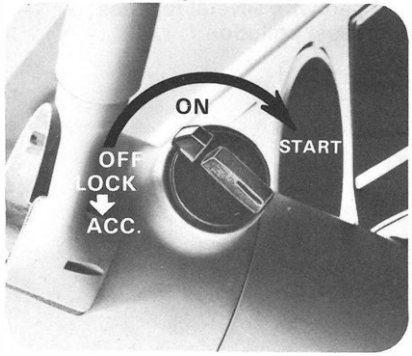
LOCK (Normal Parking Position) — Locks the ignition when the key is removed and provides an added theft protection by preventing operation of the steering wheel.

OFF (1st Forward from Lock) — Permits turning the engine off but does not lock the steering wheel.

ON (2nd Forward from Lock) — Normal operating position. The ignition circuit and the electrically operated instruments are energised.

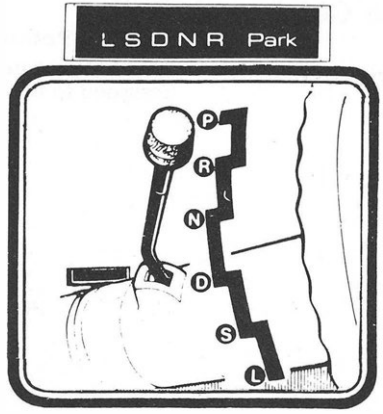
START (3rd Forward from Lock) — This starts the engine.

CAUTION: Do not turn the ignition switch away from the "ON" position while the vehicle is in motion as this renders ineffective any power assisted equipment. Never remove the key while the vehicle is in motion as this will lock the steering of the vehicle.



Column Shift (where fitted)

The column mounted shift lever features a spring loading against a stepped segment. Refer to page 28 for shift positions.



Horn

The horn is operated by pressing the area within the "stitching" of the cover fitted to the steering wheel spoke. The horn can be operated at any time.

Power Steering

This system has been designed to reduce steering effort. It uses hydraulic pressure to lighten steering loads and is designed so that "road feel" is retained. Care should be taken not to hold a turning force on the steering wheel when stationary (i.e. when waiting before turning a corner, etc.) as this may lead to high temperatures and deterioration of the hydraulic fluid.

CAUTION: Power Steering assistance is provided by a hydraulic pump driven by the engine. The power steering is rendered ineffective when the engine is not running, if the power steering pump drive belt breaks or if the pump reservoir is empty of fluid.
Do not drive the vehicle under these conditions.

NOTE: If the steering lock is difficult to disengage when the vehicle has been parked with the tyres hard up against the kerb or with the steering wheel off-centre it may be necessary to rotate the steering wheel to free up the ignition steering lock.

PARKING: When leaving your vehicle unattended:

1. Apply the parking brake. (Refer to page).
2. Place transmission selector in: Park.
3. Turn key to LOCK position.
4. Remove key.
5. Lock all doors and windows.

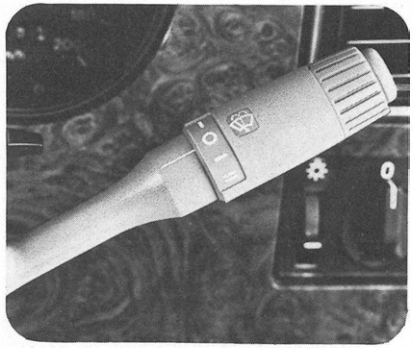
Windshield Wipers and Washers

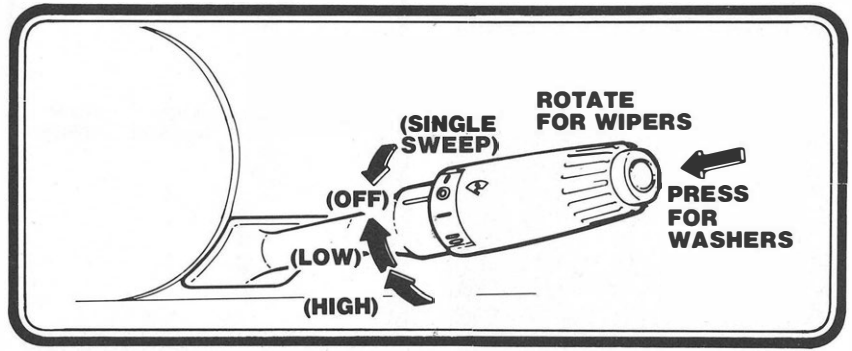
The wiper and washer mechanisms operate when the ignition switch is in either the ON or ACC positions.

WIPER OPERATION — The Windshield wipers are operated by turning the end of the stalk clockwise from the O position:
— Position for slow wiper speed.
= Position for fast wiper speed.

To stop the wipers, turn the stalk back to the O position. An extra position is proved which operates the wipers for a single sweep only. From the O position turn the stalk anti-clockwise to the I position and release. The stalk will return to the O position and the wipers will sweep once across the windscreen and return to their rest position.

WASHER OPERATION — By depressing the button on the end of the stalk the electric washer pump is activated, spraying jets of fluid onto the area swept by the wiper blades. If the windshield wipers are not in operation at the time, depressing the button on the stalk will automatically start them operating on slow speed and keep the wipers operating until turned off.





Wiper Dwell Control

The dwell control can be operated by turning the knob on the instrument panel in a clockwise direction which progressively increases the dwell period between wiper blade sweeps.

Operation of the wiper blade speed control in either Slow or Fast positions will override the dwell control setting. If the wiper speed control is returned to the OFF position, the dwell control will take over at the particular setting being used. To turn off the dwell control, the knob must be turned back in the anti-clockwise direction to the switched OFF position.

Turn Signals

To indicate turning left, push the stalk up.

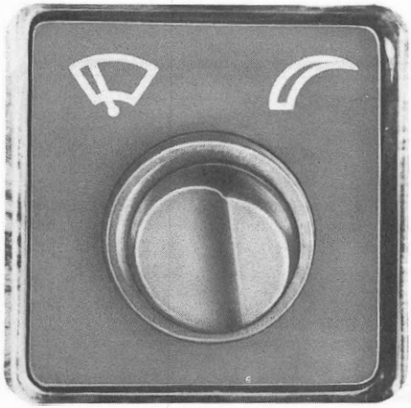
To indicate turning right, push the stalk down.

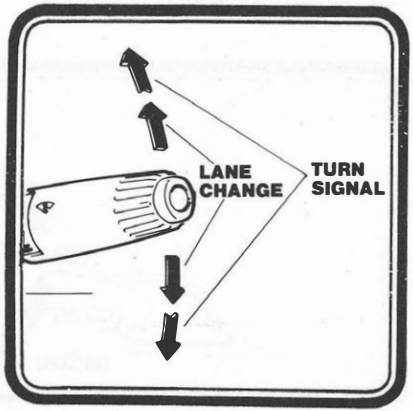
The signal cancels automatically when the turn is completed. If the green turn signal indicator lights do not flash, or if you cannot hear them clicking, or if they start to flash slower or faster than usual — have them checked right away.

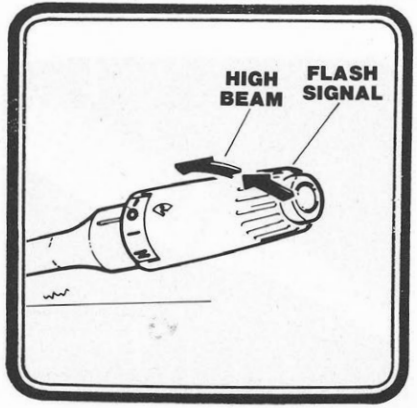
Using the two-stage operation shown in the illustration it is possible to signal lane changing by exerting slight finger pressure on the stalk in the direction of intended vehicle movement. On release of finger pressure the stalk will return to the neutral position.

Headlamp Dipping

The combination stalk is also used to change the headlamp beam from low to high or high to low. To select high beam move the stalk rearward, towards the steering wheel and then release. Repeating this operation will change the beam from high back to low.







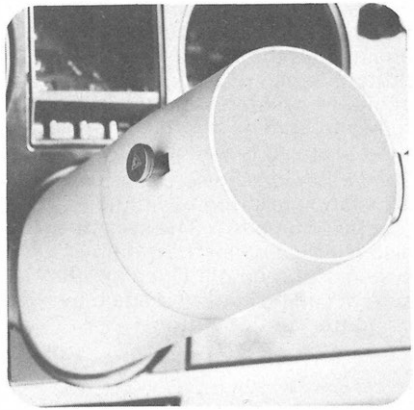
This means that each time the stalk is moved in this manner, the light beam will change. When the headlamps are operating on high beam a blue light located on the instrument panel will glow.

It is also possible to flash the high beam for signalling purposes without operating the light switch by moving the stalk rearward, towards the steering wheel. A light resistance will be felt at the flash position. Further movement towards the steering wheel will cause dip switch operation. The lights will remain on high beam as long as the stalk is held up.

Hazard Warning Switch

This is the red button located at the left side of the steering column. When stopped in an emergency situation press the button in. This makes all four turn signal lights flash continuously. When in action both turn signal indicator lights on the instrument panel will also flash.

The hazard warning is stopped by withdrawing the push button.



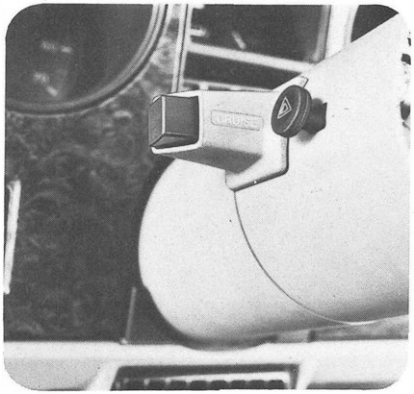
Cruise Control (Caprice)

The Cruise Control is an automatic speed control system, which allows the driver to control his speed over a wide range of operating conditions.

Within the engine limitations, a constant speed of 50 km/h or higher can be held, thus increasing comfort and economy on freeways, highways and open roads.

How to operate

The Cruise Control system is activated by accelerating to the desired speed, then depressing and slowly releasing the control button on the left side of the steering column.



You may then remove your foot from the accelerator pedal. The car's speed will be automatically maintained. Car speed may be increased for highway passing and the system overridden simply by depressing the accelerator pedal. The system will automatically return to its previous setting once the accelerator is released.

To permanently increase speed while the Cruise Control is engaged, simply accelerate to the desired speed, then depress the control button and release slowly.

Disengagement

To decrease speed once the system is engaged, depress the brake pedal lightly. When the desired speed is reached, it will be necessary to once again press the Cruise Control button. Speed reduction may also be achieved by depressing the button fully and holding it firmly until the desired speed is reached.

The automatic Cruise Control system is instantly released by lightly touching the brake. The system is also released when the ignition system is turned off. Once off, the system can be activated again by using the control button.

Caution: Do not use the Cruise Control when road or driving conditions could require varying speeds. A constant speed may not be practical in heavy or varying traffic, or on winding, slippery or rough roads.

Remember that taking your foot off the accelerator when the Cruise Control is engaged does not let the car slow down. Touching the brake pedal will disengage the system and allow the car to slow down.

When going up or down hills, (particularly when towing a trailer) or where the engine is still cold with the Auto Choke still operating, it is possible for the car to gain or lose speed even though the Cruise Control is operating. In that case, you may need to disengage the system and resume manual speed control.

Starting and Driving

The following suggestions are for starting and driving and should be followed if you are to get the best out of your vehicle.

Parking Brake

This should be firmly applied, and released only after you have started up.

Automatic Transmission

Check that the selector lever is in either N or P. The engine will not start if it is in any other position.

Engine

Cold Starting

Your vehicle's engine has an automatic choke system.

Before starting a cold engine, press the accelerator pedal slowly to the floor and completely release it again. This action sets the choke system for starting. Turn the ignition key to the START position until the engine is started. If the engine fails to start within a few seconds, turn the key to the OFF position then depress and release the accelerator pedal before turning the ignition key to the START position again. Release the key when the engine is started. If the vehicle has been standing for several days, it may be necessary to repeat this procedure a few times until the engine starts. After the engine has started, allow it to run at fast idle for at least 10 seconds before engaging gears. Do not KICK DOWN, i.e. do not depress the accelerator pedal in an attempt to lower the engine idle speed. While the engine is running, the automatic choke gradually moves to the off position as the engine reaches normal operating temperature.

In temperatures below 0°C, let the engine run at fast idle in NEUTRAL for at least one minute. Without touching the accelerator pedal, put the automatic transmission into DRIVE and wait for a few seconds for the engine to steady itself before driving away.

Flooding

Pumping the accelerator can cause flooding which will prevent the engine from starting.

If this occurs, press the accelerator down to the floor and hold it there while holding the key in the START position. When the engine starts, allow the accelerator pedal to come up slowly.

Warm Starting

During summer, or when your engine is warm, the choke system operates only briefly — if at all.

To start — press the accelerator halfway to the floor and hold it in this position, then turn the key to START.

Idle the engine in Neutral for about 30 seconds before driving off.

Initial Driving

Depress the main brake pedal and release the parking brake. Place the gear selector lever into the DRIVE or REVERSE position. Release the brake pedal. Lightly depress the accelerator pedal to set the vehicle in motion.

Automatic Transmission

T-Bar Shift Lever

The engine will not start unless the selector is in either P or N. Select your gear — normally D — after the engine has started. By depressing the thumb button the selection of gears from L to P or P to L and any intermediate positions can be made.

Shifting upwards from L to S to D to N does not require use of the thumb button but it must be depressed to select R or P.

Selecting positions from P requires depressing the thumb button to move out of PARK. Releasing before R will still allow selection through R to N to D. The thumb button must be pressed again to shift into the lower positions S or L.

Column Shift (where fitted)

The column mounted shift lever features a spring loading against a stepped segment.

Going down through the "gears" from P to L—lift the lever to move from P to R. You can go through to N and D without lifting the lever. Lift it again to go to S and again to go to L.

Going up from L to P—you can move from L to S to D to N without lifting the lever.

Lift it for either reverse or P.

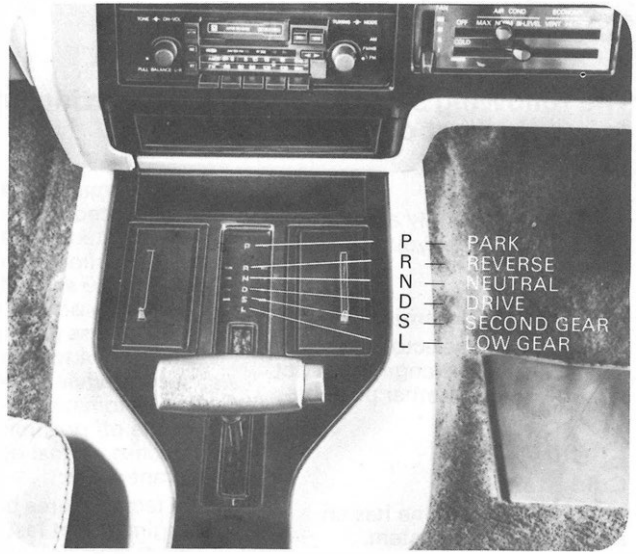
What the Positions are for:

P — Parking. Always use the parking brake as well. Your engine may be started in this position.

R — Reverse. Your vehicle must be stationary before you select this position.

N — Neutral. This position can be used to start the engine. It must be used if the vehicle is being towed on two wheels by a tow truck.

D — Drive. This is the normal driving position and allows for adequate acceleration for all but the most crucial driving situations.



NOTE: In this position the vehicle begins accelerating in first gear and shifts automatically into 2nd and 3rd gear. When applying gradual and even accelerator pressure, shifting into fuel saving higher gears takes place earlier than when accelerating rapidly.

S — Second. This may be used going down moderately steep hills. It will give a slight braking action without the use of the brakes.

Don't use at speeds over 95 km/h on 6 cylinder models or 110 km/h on 8 cylinder models.

L — First. This gives maximum braking for steep hills. Shift back to S or D when you've negotiated the difficult bits. Don't use at speeds over 65 km/h.

Back-Up Lights

If the engine is on, these will operate whenever Reverse is selected.

Passing

When the accelerator is pressed down hard, the shifts shown below will normally occur automatically. Speeds given may vary depending on type of rear axle and tyres.

SELECTION	SPEED RANGES AND EFFECT
SHIFT LEVER IN **D**	Under 115 km/h the transmission will change into second gear. When the vehicle speed reaches 125 km/h it will change back into third gear. Under 40 km/h the transmission will change into first gear. When the vehicle speed reaches 80 km/h it will change back into second gear, and then at 125 km/h back to third gear.
SHIFT LEVER IN **S**	Under 40 km/h the transmission will change into first gear. When the vehicle speed reaches 80 km/h it will change back into second gear. Do not exceed 115 km/h when operating in this range.
SHIFT LEVER IN L	**No changes will occur.** **Do not exceed 70 km/h when operating in this range.**

Automatic Driving Don'ts

- Don't rev the engine with the brakes on in either L, S, D or R. This will overheat the transmission.
- Don't rev the engine to hold it on a slope. Use the brakes.
- Don't move into either R or P unless the vehicle has stopped.
- Don't ever coast the vehicle in N — this lessens your control and braking power.

Floor Controls

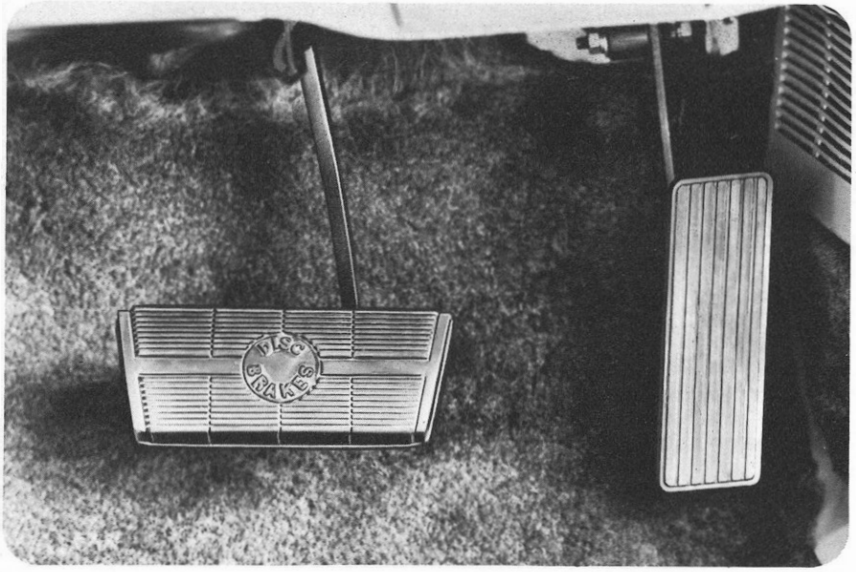
Dual Circuit Brake System

The braking system on your vehicle is actually two separate systems; one operating the front wheels, the other operating the back wheels.

Hydraulic pressure is provided from a tandem design master cylinder which apportions pressure to each brake system.

So, if either system is faulty, you can still brake the vehicle, with extra pedal effort and more pedal travel.

After you've been driving your vehicle for a while you will become used to how the brakes feel when they are operating normally. If you notice any change in this "feel", have them checked.



NOTE: You should always adjust your seat to a position where your feet can comfortably lay flat on the floor under the brake.

Power-Assisted Brakes

These will still work with the engine switched off, but you will have to brake much harder than usual. To be safe — NEVER run downhill with the engine off, and NEVER coast with the engine off. Also, never have the vehicle towed on 4 wheels without a rigid connection between the two vehicles. A tow truck is safer.

Front Disc Brakes

These brakes adjust themselves automatically to compensate for wear.

Rear Disc Brakes

The rear disc brake system includes a proportioning valve. Under normal operation this reduces the pressure to the rear brakes during heavy stops to compensate for weight transfer. In the event of a failure of the front system due to leakage, this valve supplies full pressure to the rear system. These brakes adjust themselves automatically to compensate for wear.

Accelerator Pedal

The accelerator pedal is used to regulate engine power and vehicle speed.

Parking Brake

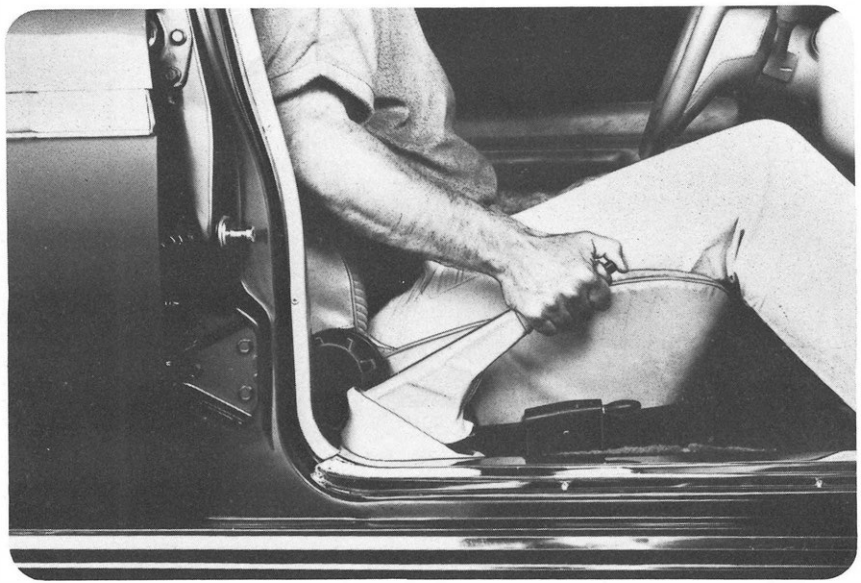
The parking brake lever is mounted on the door side of the driver's seat.

To Apply. Pull the lever straight up using the grip at the end of the lever. **Do not press the release button.** The lever will drop to the floor when released.

To Release. Pull the parking brake lever upwards while simultaneously pressing in the release button at the end of the lever with the thumb. After the ratchet system disengages, retain pressure on the button while lowering the lever.

Warning Lights

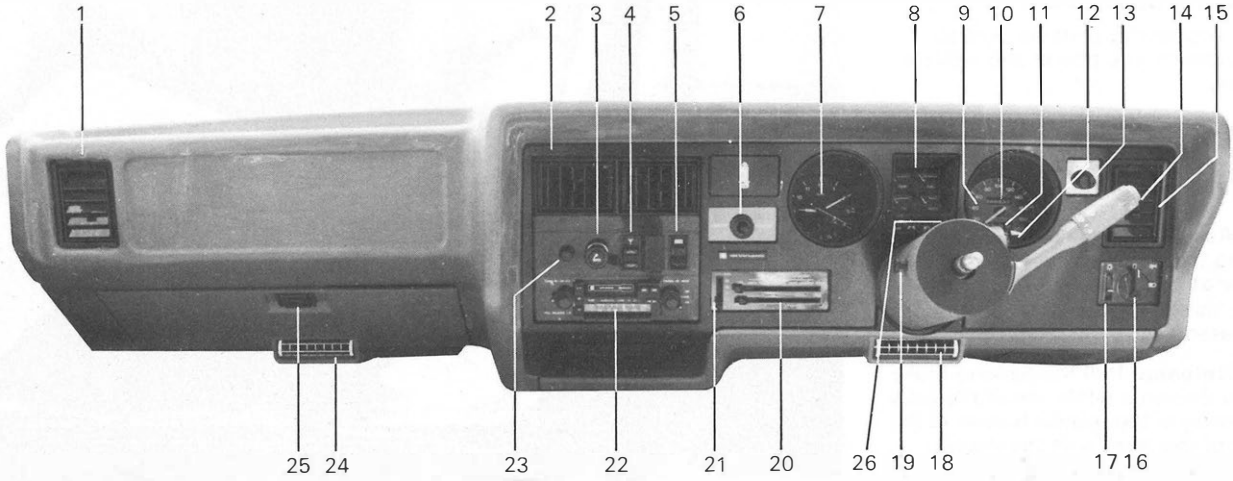
A BRAKE WARNING LIGHT and PARKING BRAKE WARNING LIGHT are fitted for your safety. (Refer page 38 Indicator Lights.)



DeVille Series II

Instrument Panel Controls and Dials

These pages detail all available instruments and control options. Some features may not be fitted to your vehicle.



INSTRUMENTS AND CONTROLS
DeVILLE SERIES II

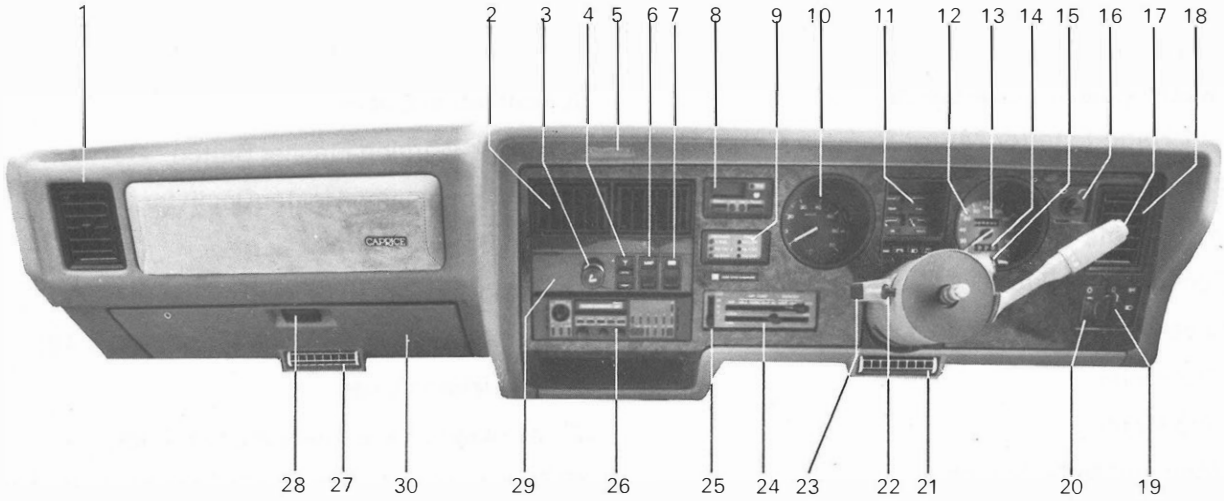
1. Left Hand Ventilation Outlets
2. Central Ventilation Outlets
3. Cigarette Lighter
4. Power Antenna
5. Heated Rear Window Switch
6. Left Hand Exterior Mirror Remote Control
7. Clock
8. Instruments
   (Temperature, Fuel, Oil & Volts) and Warning Lights
9. Speedometer
10. Odometer
11. Trip Meter
12. Ignition/Starter Switch
13. Wiper Dwell Control
14. Signal/Light/Windscreen Wiper Switch Combination
15. Right Hand Ventilation Outlets
16. Light Switch
17. Instrument Panel Dimmer Wheel
18. Ventilation Outlet
19. Hazard Warning Flasher Button
20. Air Conditioning/Heater/Demister Controls
21. Fan Speed Control
22. Radio and Stereo Cassette Tape Player
23. Rear Speaker Fader Control (refer page 48)
24. Ventilation Outlet
25. Instrument Panel Compartment Lock
26. Transmission Column Shift Control * (refer page 22)

* where fitted

Caprice Series II

Instrument Panel Controls and Dials

These pages detail all available instruments and control options. Some features may not be fitted to your vehicle.



INSTRUMENTS AND CONTROLS
CAPRICE SERIES II

1. Left Hand Ventilation Outlets
2. Central Ventilation Outlets
3. Cigarette Lighter
4. Power Antenna Switch
5. Map Light
6. Map Light Switch
7. Heated Rear Window Switch
8. Trip Computer — Display Module.
9. Trip Computer — Function Select Module.
10. Tachometer
11. Instruments
    (Temperature, Fuel, Oil & Volts) and Warning Lights
12. Speedometer
13. Odometer
14. Trip Meter
15. Ignition/Starter Switch
16. Wiper Dwell Control
17. Signal/Light/Windscreen Wiper Switch Combination
18. Right Hand Ventilation Outlets
19. Light Switch
20. Instrument Panel Dimmer Wheel
21. Ventilation Outlet
22. Hazard Warning Flasher Button
23. Cruise Control
24. Air Conditioning/Heater/Demister Controls
25. Fan Speed Control
26. Radio and Stereo Cassette Tape Player
27. Ventilation Outlet
28. Instrument Panel Compartment Lock
29. Additional Warning Lights (Coolant, Lampout, Door Ajar, Lo Fuel and Seat Belt)
30. Remote Luggage Compartment Release (Inside Glove Compartment)

Instruments & Dials

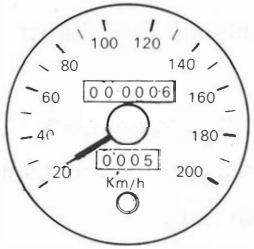
Speedometer, Odometer and Tripmeter

The Speedometer face incorporates the odometer digits to show the distance travelled in kilometres. The Speedometer is calibrated from 0 to 200 kilometres per hour (km/h).

A Tripmeter, which is set to zero by the push button, records the distance covered on a particular trip.

Tachometer (where fitted)

The Tachometer is graduated from 0-70 indicating engine revolutions in hundreds per minute (r.p.m.). Maximum engine power is developed at 4,400 r.p.m. and maximum allowable engine r.p.m. is 5,000. Continued or sustained operation above 5,000 r.p.m. could cause serious engine damage.

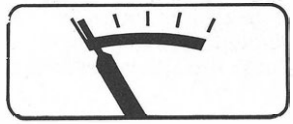


Clock (Dial Type) (De Ville models)

The clock is electrically energised, the time setting is adjusted by pulling out the knurled knob and rotate the dial hands or dial numerals. The clock operates at all times.

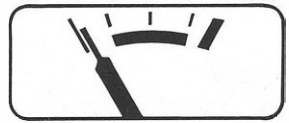
Note: The adjuster on dial type clocks is also a starter and is operated by pulling it out and allowing it to snap back.

Fuel Gauge



This gauge is electrically operated to indicate the proportionate amount of fuel contained in the fuel tank. The gauge is activated when the ignition switch is turned to the ON position. The approximate amount of fuel in the tank is: Full, 91 litres; ¾, 70 litres; ½, 45 litres; ¼, 25 litres.

Temperature Gauge



The gauge is calibrated to indicate the relative operating temperature of the cooling system. If the needle reaches the red section, (indicating high temperature) the engine should be stopped and allowed to cool down before attempting to locate the cause of the problem. (Refer page 60 for engine overheating instructions.) "Under normal driving conditions the needle should lie somewhere within the band shown in the centre of the gauge."

Oil Pressure Gauge (where fitted)

The oil pressure gauge indicates the relative operating pressure within the engine lubricating system.

Should the gauge fail to indicate a reading or if the needle moves towards the RED section of the gauge (indicating low pressure) when the engine is running above idle speed, it should be stopped and the reason for the loss of oil pressure found and corrective action taken.

Low oil pressure is indicated by a red light in the left hand corner of the gauge.

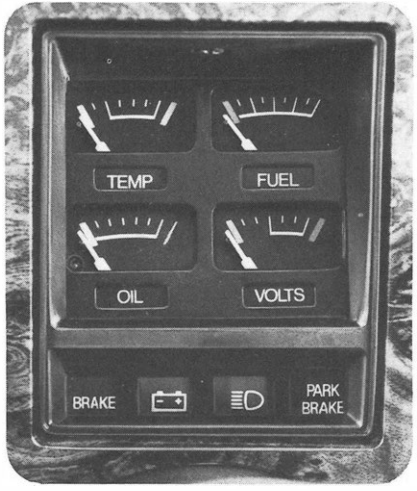
Voltmeter (where fitted)

The voltmeter indicates the condition of the electrical charging system. Normally the needle will remain in the white band operating area of the dial.

Needle movement to the left red zone indicates a low voltage condition. Needle movement to the right red zone indicates a high voltage condition.

In either of these cases, the electrical charging system will require checking; items such as the battery, voltage regulation, drive belt or wiring and connections could be affected. A generator charge indicator light is incorporated below the gauges in the warning light cluster.

Indicator Lights and Instrument Panel Controls



Brake Failure Warning

BRAKE

If the sign glows at any time, it will indicate that there may be something wrong with the braking system. Immediately the indicator light glows, under these conditions, stop on the side of the road as carefully as possible. Do not proceed until satisfied that cautious progress is possible or that the cause of the problem has been located and rectified.

(Reference should be made to brake operations on pages 30-31.)

Generator

The white symbol on a red rectangle will glow when the ignition switch is turned to the ON position. After the engine had been started, the light will go out and remain out. If the light should glow after the engine is running, the fault causing the problem should be located and corrective action taken.

High Beam

When the headlamps are on high beam a white symbol on a blue rectangle located on the warning light cluster will glow.

Parking Brake Warning

PARK BRAKE

When the parking brake is applied with the ignition switch in the ON position, the sign will glow until the parking brake is fully released.

Oil Pressure (where fitted)

A red light in the left hand corner of the gauge will glow when the ignition switch is turned to the ON position. After the engine has been started, the light will go out and remain out. If the light should glow after the engine is running above idle, stop the engine and the reason for the loss of oil pressure should be located and corrective action taken.

Oil Pressure (where fitted)

This indicator light is fitted when the bench seat/ column gear shift option is incorporated. The function is identical to the above description.

Lamp Failure Warning (Caprice models)

Situated below the central ventilation outlets.

If the sign glows at any time it will signify a failure of any of the rear parking lamps, number plate lamps or stop lamps.

The indicator will glow momentarily (as a bulb check feature) when the engine is being started.

Seat Belt Warning (Caprice models)

Situated below the central ventilation outlets.

When the ignition switch is turned to the ON position the indicator lamp will glow for approximately 20 seconds.

Low Coolant Warning

Situated below the central ventilation outlets. If the sign glows at any time it will signify a low coolant situation. To avoid possible damage stop the engine and the reason for the loss of coolant should be located and corrective action taken.

The indicator will glow momentarily (as a bulb check feature) when the engine is being started.

Low Fuel Warning (Caprice models)

The light comes on when the level in the fuel tank is down to approx. 6 litres.

Door Ajar Warning (Caprice models)

Situated below the central ventilation outlets. If the indicator glows at any time it will signify that one or more doors are not fully latched. This indicator will function with or without the ignition switched on.

Turn Signal

There are two green arrow-head turn signal indicators. They are located at the top outer corners of the speedometer and either the tachometer or the anologue clock. The appropriate indicator will flash in the direction signalled.

Hazard Warning Flashers

The two green arrow-head turn signal indicators on the instrument panel will flash continuously whilst the Button located on the left side of the steering column is depressed.

Heated Rear Window Switch

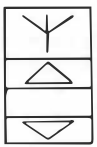
The electrically heated rear window switch located above the radio operates with the IGN SWITCH in the ON or ACC position. A coloured surface on the top of the switch is illuminated when the switch is on. The symbol above the switch comes on together with the exterior vehicle lighting and changes to a purple colour to indicate the rear window heating is switched on. It should only remain in operation until the rear window is clear.

When cleaning the rear window observe the hints given under "Care of the Exterior".

Map Light Switch (Caprice models)

The map light switch located above the radio can be operated at any time. A white surface on the top of the switch indicates the map light is on. The symbol above the switch illuminates together with the exterior vehicle lighting.

Power Antenna—Radio



The power antenna will extend automatically to car roof height after a slight delay when the IGN. SWITCH is turned to ON or ACC and the radio is turned on. The antenna can then be further extended or retracted manually by depressing the instrument panel switch in the desired direction. When the ignition switch is turned to OFF or LOCK the power antenna will retract automatically after a delay of 10 to 15 seconds.

The symbol above the switch illuminates together with the exterior vehicle lighting.

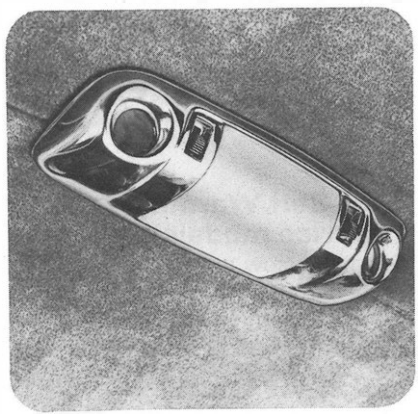
Cigarette Lighter

The Cigarette Lighter is activated only when the ignition switch is in the ON or ACC positions. To operate, simply press in the lighter knob. It will stay in until the element is hot at which time the lighter will automatically pop back to its original position ready for use.

Dwell Control (refer page 24)

The dwell wiper switch controls the dwell period between wiper blade sweeps. Operation of the wiper blade speed control on the stalk in either slow or fast positions will override the dwell control setting. If the wiper speed control is returned to the OFF position, the dwell control will take over at the particular setting being used.

Courtesy Light



When operating any door, the courtesy light is automatically switched on. When pulling the light switch knob towards you to first detent, the courtesy light and centre dome lamp remain on, even with front doors closed. The rear quarter panel lights and overhead lamps are actuated on each side only, with the switch built into the lamp fitted to each rear quarter light. The spot reading lamps fitted in the centre dome lamp are activated by individual switches on each spot lamp.

Headlight High/Low Beam Control

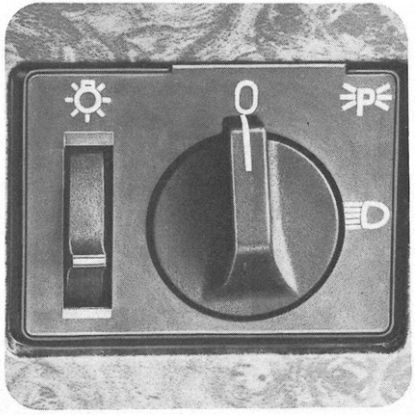
When headlights are on, high and low beam selection is made by drawing the turn signal lever towards the steering wheel. Each time the lever is moved in this direction the beam position will change, even with turn signals in operation.

Always use the low beam when approaching or following other road users.

Rotary Control—Instrument Lighting

The brightness of the instrument lighting may be controlled by rotating the control wheel, the brightness increasing as wheel is turned downwards and decreasing when turned the other way, when the light switch is in one of the ON positions.

Light Switch



Headlamps, tail lamps, parking lamps, instrument lighting and interior lighting are controlled from a single switch located on the driver end of the lower instrument panel.

The various operating positions of the switch control the lamps in the following order:—

Parking Light. Turning the light switch clockwise to first detent will switch on parking lights, tail lights and licence plate lights, as well as instrument lights.

Headlights. Turning the light switch fully clockwise to the last detent will, depending upon turn signal lever position, switch on headlight low or high beam, and simultaneously parking lights. This will provide uninterrupted illumination, even if a headlight on either side fails.

Luggage Compartment Light

The luggage compartment light will come on when opening the lid—independent of exterior lights.

Engine Compartment Light

When opening the hood, the engine compartment will be illuminated, provided the park or headlights are turned on.

Back-Up Lights

The two back-up lights provide general illumination behind the vehicle when shift lever is placed in reverse and ignition is turned on. They provide a visible signal to other drivers and pedestrians that the vehicle is operating or about to be operated in reverse gear.

Ventilation, Heating & Air Conditioning

Normal Operating Conditions

Winter

Select either BI-LEVEL, VENT or HEATER postions

Summer

Select either BI-LEVEL, VENT or HEATER positions

All Seasons

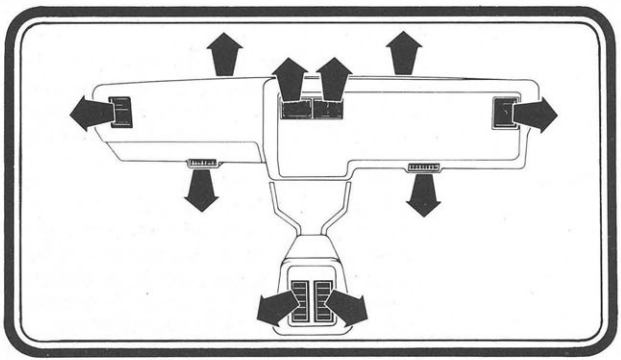
Regulate the car temperature by moving the COLD-HOT lever.

The chart on these pages shows the recommended settings for variable conditions as well as normal conditions.

During some air conditioning conditions, slight increases and decreases in engine speed and power may be noticed. This characteristic is normal as the system is designed to cycle the compressor ON and OFF to maintain desired cooling.

Air Distribution

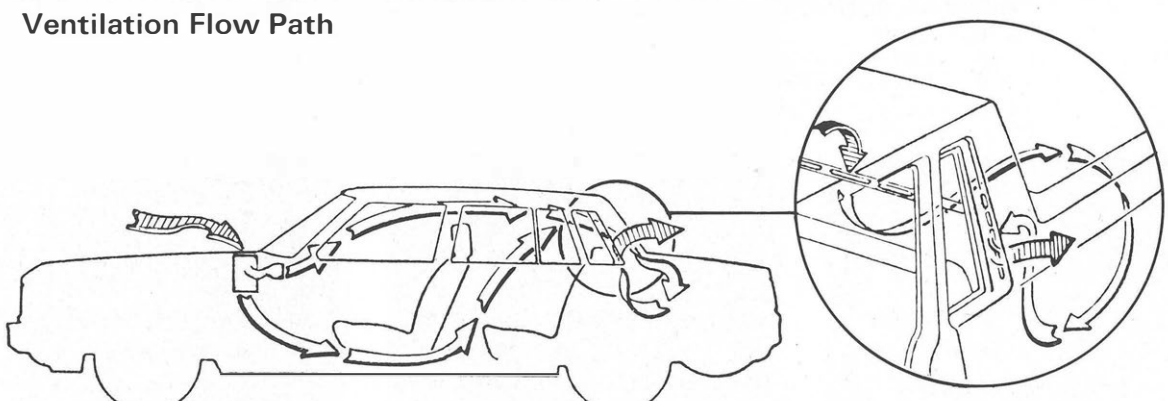
Air is distributed through adjustable instrument panel air outlets and through the vents at the end of the centre arm rest console to the rear passenger compartment. The direction of air is determined by the control lever settings.



Air Control Lever

The air control lever regulates air flow from the heater, demister and adjustable air conditioning outlets. It also controls the operation of the air conditioning compressor.

Ventilation Flow Path



Air Control Lever

OFF — Limited air flow from demister and heater outlets.

MAX — An air conditioning position where passenger compartment air is blended with a small amount of fresh outside air, conditioned and then distributed through the adjustable instrument panel air outlets. In the MAX setting the system will provide maximum cooling and variable fan speed. This setting is suited to conditions of very high temperature and humidity and fast cool down.

NORM — An air conditioning position where fresh, conditioned air is directed through the adjustable instrument panel air outlets, lap coolers and rear seat outlets. This setting may be used in most conditions requiring air conditioning.

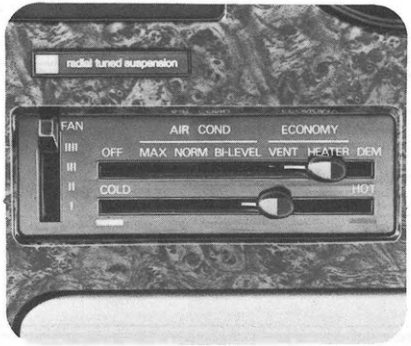
BI-LEVEL — An air conditioning position where fresh, conditioned air is directed through the heater and adjustable instrument panel air outlets, lap coolers and rear seat outlets, with some air flow to the windshield. Useful when the windshield and side windows are misted over due to sudden rain or entry into the car with wet clothing.

VENT — Outside air is directed through the adjustable instrument panel outlets. Used in cool-to-moderate weather where refrigerated air is not required.
THIS IS AN ECONOMY POSITION, WITH THE REFRIGERATION SYSTEM COMPRESSOR TURNED OFF.

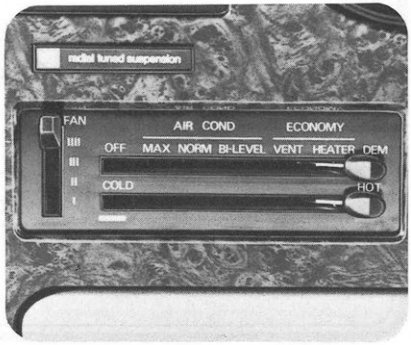
HEATER — Fresh, outside air is directed through the heater outlet, with a small amount to the windshield.
AN ECONOMY SETTING FOR COOL TO COLD CONDITIONS.

DEMIST — The compressor will operate to provide, conditioned (dry) air to the windshield, with a small amount from the heater outlet. Use in fogging and icing situation.

Bi-Level (A/C)



Heater (Economy)



Demist (A/C)

Temperature Control Lever

The temperature control lever regulates the temperature of the air entering the passenger compartment. Positions of the lever determines the air temperature from OFF through to HOT.

Fan Control Lever

The fan control lever provides four speed levels for the blower fan and operates in all Air Control Lever positions except OFF.

AIR CONDITIONING CONTROLS

Condition	Air Control Lever						Temp. Lever	Fan Lever
	Off	A/C	Vent	Heater	Bi-Lev.	Demist		
Fast Cool Down (Hot Weather)		Max.					full cold	IIII
Hot Weather Driving		Norm					as desired	**
Mild or Damp Weather		Norm			X		as desired	**
Heating (Standard)			•	•			as desired	**
Maximum Heat			•	•			full hot	IIII
Windshield Demisting					†	X	as desired	IIII
Windshield Defrosting						X	full hot	IIII
Best Fuel Economy	•		•	•			as desired	as desired

• Mode of operation is optional at discretion of operator.
** Either of the two intermediate positions.
X These air centred lever settings provide the best effect in damp or wet-weather conditions.
† The Bi-Level setting is useful when both windshield and side glass are misted over.

Optional Features

These features are not fitted as standard equipment and are therefore not applicable to all vehicles.

Superlift Shock Absorbers

These allow direct control of vehicle level, so that when a vehicle is loaded or towing a caravan or trailer, the loaded height can be readjusted to give improved ride and handling and ground clearance in rough terrain. Also, they maintain a better headlamp level when high beam is used.

Superlift shock absorbers use compressed air and can be inflated or deflated through an air valve, similar to any standard tyre.

AIR PRESSURE VALVE LOCATION

Inside the luggage compartment on the right side to the upper rear of the wheel housing.

AIR PRESSURE RECOMMENDATIONS

1. Never allow the pressure to fall below 70 kPa as this will result in damage to the shock absorbers.
2. Maximum permissible pressure when the vehicle is fully loaded is 620 kPa.
3. Maximum permissible pressure when the vehicle is unloaded is 210 kPa.
4. The shock absorbers should be inflated when the vehicle is standing on a level surface and only until:
   (a) The vehicle appears to be level, or
   (b) Maximum permissible pressure is reached

   whichever is reached first.
   (c) Satisfactory ride characteristics are obtained based on previous usage, but not exceeding the above limits.

"Limited Slip" Differential

Where this differential is fitted, it can be identified by a metal tag retained by the axle filler plug. The label calls attention to the need for special oil in this type of axle which must comply with the **GM HN1561 Specification.**

Use of unsuitable oil could result in noisy operation and/or excessive wear.

The "Limited Slip" Differential directs the major driving force to the rear wheel having the greater amount of traction, but it will not interfere with the normal differential action.

When the rear wheels are under extremely unbalanced tractive conditions (such as when one wheel is on a dry road surface and the other is on ice or mud) wheel spin can occur if over-acceleration is attempted. This condition may also be experienced if the driver over-accelerates on a wet road where a sharp bend must be negotiated. It is important that there be no excessive rear tyre differences. One indication of this condition is swerving on acceleration. If this is encountered, check the rear wheels for different tyre size, air pressures or excessively different wear and tread patterns.

CAUTION: Never run the engine with a gear engaged and one wheel raised if the vehicle is fitted with a "Limited Slip" differential. The driving force directed to the wheel on the ground will cause the vehicle to move.

AM/FM Radio and Stereo Cassette Tape Players

The Two Types of Radio Signals

There are two basic types of radio signals — AM or Amplitude Modulation, in which the transmitted sound causes the amplitude, or height, of the radio waves to vary — and FM or Frequency Modulation, in which the frequency of the wave is varied to carry the sound.

AM Signal Range

AM broadcast waves can curve or bend around obstructions, and thus tend to follow the curvature of the earth. The upper atmosphere (ionosphere) reflects AM signals back to earth, so stations can be heard at fairly long distances, especially after dark when the ionosphere layer rises.

FM Signal Range

FM broadcast waves do not bend, but rather reflect off some solid objects. They usually pass through the ionosphere and are not reflected back to earth. This gives them a straight line-of-sight transmission, which limits good FM reception to about 25 miles (40 km).

Electrical Disturbances

Radio waves may pick up electrical disturbances during transmission. They mainly affect the wave amplitude, and thus remain a part of the AM reception. They interfere very little with the frequency variations that carry the FM signal.

AM Reception — Because AM sound is based on wave amplitude, it's not possible to filter out the electrical static without removing the sound as well. As a result, AM reception can be disrupted by such things as lightning, power lines and neon signs.

FM Reception — Because FM transmission is based on frequency variations, interference that consists of amplitude variations can be filtered out, leaving the reception relatively clear, which is the major feature of FM radio.

Radio and Stereo Cassette Tape Player (De Ville)

1. **On/Off Volume Switch**
   Push this in to turn the radio on. A second push will turn it off. Turn the knob to alter volume. The power antenna will automatically extend and retract when this switch is on and will remain retracted with this switch off.
2. **Tape Eject**
   Push to eject tapes. Once a tape has been ejected the radio will play if the control switch is on.
3. **Tone Control**
   The tone control lever is located behind the L.H. Knob (On/Off Switch).
4. **Dolby ® Button**
   For use with Dolby ® tapes.
5. **Balance Control**
   Pull out and turn (ON/OFF switch) to balance the sound from left and right stereo channels. The left channel is fed directly to the left rear speaker and the right channel is fed to the Fader Control.
   The Fader Control (situated to left of cigarette lighter) further balances sound between the front speaker and right rear speaker. NOTE: If the balance control is set fully to the left channel (i.e. left rear speaker) the fader control will have no effect.
6. **Stereo Button**
   This push-button should normally be set to "stereo" which is indicated by the light next to the illuminated display. In certain fringe areas better reception may be obtained on "Mono" setting.
7. **Push Button Tuning Controls**
   These allow you to tune to any of five pre-selected stations without having to rotate the tuning knob. To set the buttons first turn the radio on and turn the volume up louder than normal. Unlock the push-button you wish to set by pulling out firmly. Now use the manual tuning knob to tune to the station you want. Take time to tune precisely then push in the button until it locks. Repeat for the other push buttons. A total of five AM or five FM or any combination of AM and FM stations can be preset.
8. **Tuning Frequency Dial**
9. **Tuning Control**
   This control allows you to manually tune the radio.
10. **AM/FM Selector**
    A 3-way switch is located behind the tuning control. The top setting is for AM reception and the centre setting for FM. The bottom setting provides FM reception for distant stations but will consequent increase in background noise level.
11. **Track Change**
    Tape programme tracks are changed by pushing this button.
12. **Fast Forward/Rewind**
    These buttons allow you to advance or rewind the tape as desired. For fast forward push the button with arrows in the same direction as the illuminated track direction indicator. For rewind push the button which has the arrow in the opposite direction.
13. **Antenna Trimmer Adjustment**
    Located at rear of cassette opening. The antenna trimmer must be adjusted at conclusion

of installation in DeVille. Tune receiver to noise or a weak station near 1400 kHz (R.H. side of dial). Adjust antenna trimmer positioned at rear of cassette opening (refer diagram) using special tool provided, turn trimmer clockwise or anti-clockwise for maximum volume.

14. Track Direction Indicators

15. Stereo Indicator

This green panel illuminates when the stereo button has been set. The light will go out intermittently in fringe reception areas. If this occurs the mono/stereo button should be set to mono to get the best reception.

16. Cassette Tape Operation

The tape system automatically overrides the radio. To play a tape turn the radio on and then insert the cassette—the radio will switch off when the cassette is fully in. When the tape starts playing adjust volume, tone and balance to suit. The cassette will automatically eject when the ignition is turned off.

When inserting a cassette push the cassette firmly into the slot with the flat of your finger until it hits a stop, then release the cassette which should freely drop into position.

Do not use any downward pressure.

17. AM/FM Indicators

Light indicates whether AM or FM in use.

18. Dolby Ⓡ Indicator

This panel illuminates when Dolby Ⓡ button has been depressed.

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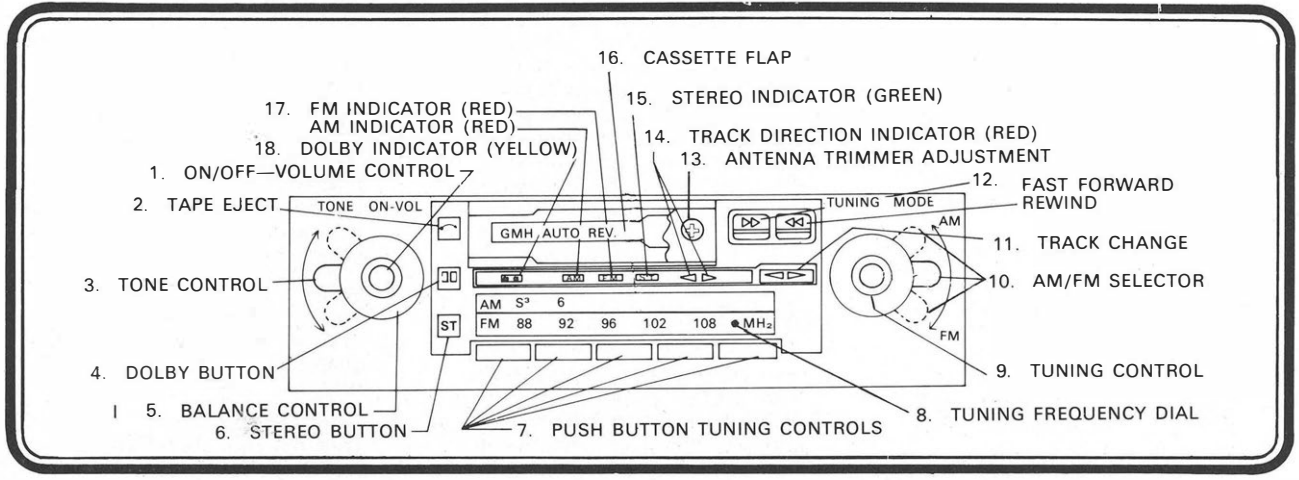


E.T. Radio and Stereo Cassette Tape Player (Caprice)

This unit is fitted as standard equipment in your Caprice. The Electronically Tuned (E.T.) radio is an AM-FM stereo signal seeking radio with digital display of radio frequencies. The speaker system is four way (2 front and 2 rear). Please following the operating instructions and diagrams carefully to ensure correct operation of this advanced electronic equipment. (Refer item 21 for how to switch radio on.)

1. **Joystick**
   Single balance control for 4 speakers. The position of this control graphically illustrates the predominance of sound direction e.g. upper left position would give sound mostly from left-front speaker.
2. **Automatic Program Search**
   The APS Control is for cassette only and with APS "ON" momentary depression of fast forward (7) or rewind (3) buttons will cause the tape to quickly run to the next "Gap" in the tape, after which the next programmed piece will commence in the normal manner. If the program thus selected is not the desired program, further depression of "FF" or "REW" buttons will cause quick traverse to the next "GAP". To disable APS depress the control again. The indicator above the APS button shows the operational state i.e. APS is activated when the indicator is lit.
3. **Rewind**
   The rewind control operates on tape only and when activated rewinds the tape towards the beginning. The tape will stop rewinding and commence playing normally when the tape is fully rewound or when the program button (6) is activated. (Refer to operation of APS—Item 2.)
   This control will rewind the tape irrespective of the tape direction shown by indicators (4).
4. **Tape Direction Indicators**
   Indicate direction of tape travel. With the RH Travel Indicator "ON" the forward spool is filling and with the LH Travel Indicator "ON" the rear spool is filling.
5. **Control Indicators**
   These indicators show when the nominated control is engaged.
6. **Program Button**
   Operation of the program button changes tracks and is indicated by the opposite direction of travel of the cassette tape.
7. **Fast Forward**
   The fast forward control operates on tape only and when activated, causes the tape to traverse rapidly towards the end. The tape will stop moving forward and commence playing normally when the tape is fully wound or when program button (6) is activated. (Refer also operation of APS—Item 2). This control will fast forward the tape irrespective of the tape direction shown by indicators. (4).
8. **Eject**
   This control ejects the tape and the radio will revert to the channel last used if the power switch is "ON".
9. **Channel Indicator**
   This indicator shows which station selector button is

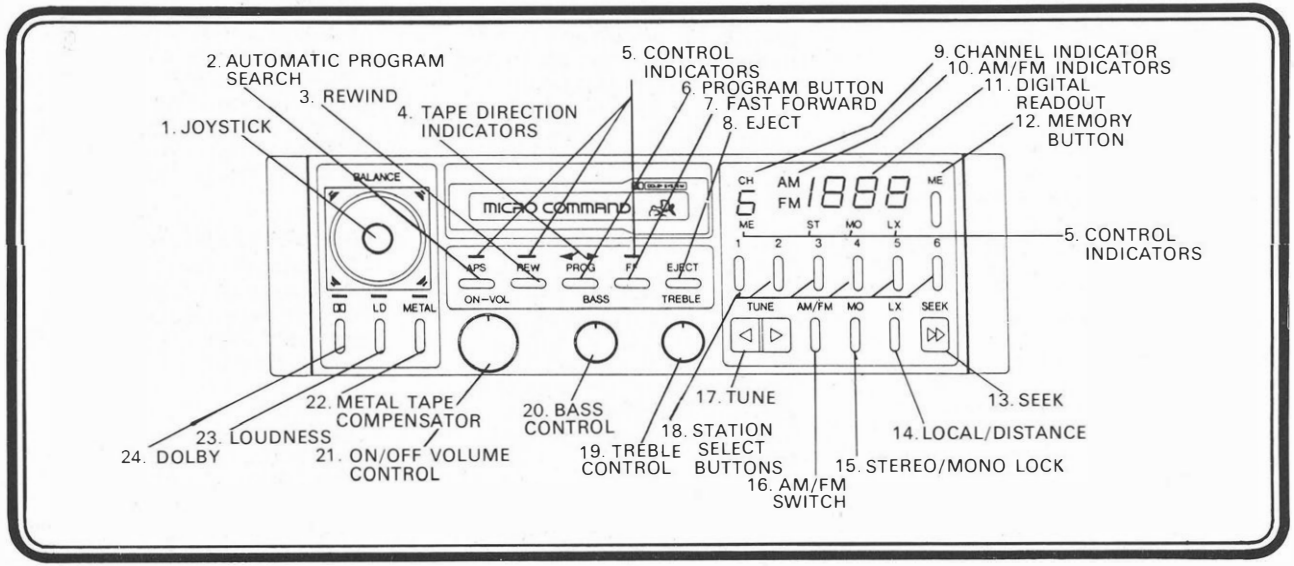
currently in use and corresponds with the number printed over the button.

10. AM/FM Indicators
The indicators operate in conjunction with AM/FM switch (16).

11. Digital Readout
Indicates frequency of station selected.

12. Memory Button
When a station has been selected by the tuning control (17) or seek control (13) and it is desired to retain this station in memory, control (12) is depressed followed by depression of the desired station selection button (18). If this button already had another station in memory the previous station will now be lost. The station button must be depressed within 5 seconds, otherwise the memorising ability will be lost. Whilst the memorising facility is available the "ME" symbol (5) will be "ON".

IMPORTANT: If the battery is disconnected or the battery feed to the radio via the in-line fuse is interrupted, the radio memories will be retained for a minimum period of 7 days. For a substantially longer period than 7 days, the preselected AM and FM stations may be lost and will need to be reset.



13. Seek

This control will automatically advance the tuned frequency until a strong station is encountered. This station will remain until the seek button is again depressed.

If too many stations are encountered, which could occur at night, the local/distance button (14) can be activated so that only the strongest stations are picked up.

14. Local/Distance

This control is normally on the distance setting to obtain greatest signal strength but in some instances, it may be desirable to eliminate the weaker stations, particularly when the seek mode is being exercised at night (see 13). As it is normal to have this control in the distance mode, indicator "LX" (5) is on to warn when the "LOCAL" mode is engaged.

15. Stereo/Mono Lock

In some areas where FM signals tend to be weak the receiver contains circuitry to automatically shift from stereo to mono to strengthen the perceived incoming signal. As this can shift from stereo to mono and back to stereo quickly, a resultant noise can be apparent. To help overcome this noise the receiver can be locked in the mono mode via switch (15). The "MO" symbol (5) is "ON" when mono is operating.

16. AM/FM

The AM/FM switch is used to process AM or FM signals. Depending on which mode is called up the "AM" or "FM" indicator (10) will be "ON".

17. Tune

The tuning control pivots around a vertical fulcrum to give tuning in frequencies up or down, depending on whether the right hand or left hand side is depressed. In the AM mode the frequencies move in 9 KHz steps and FM in 100 KHz steps.

18. Station Selection Buttons

Each of these buttons can recall from memory either an AM or FM station depending on mode of the AM/FM switch, thus a total of 12 stations can be selected. Depending on which button is depressed the appropriate number (9) will be displayed.

19. Treble (Tone Control)

The control will either boost or cut high frequencies by rotating clockwise or anti-clockwise respectively.

20. Bass (Tone Control)

This control will either boost or cut low frequencies by rotating clockwise or anti-clockwise respectively.

21. ON-OFF/Volume Control

Before the radio can be turned on, the ignition key must be in either the "ACC" or "ON" position.

Push knob in to turn the radio on. A second push will turn it off. Volume is altered by rotating knob. The power antenna will automatically extend when the radio is turned on and will retract when the radio is turned off.

22. Metal Tape Compensation

This control, when exercised, introduces compensation circuitry when metal tapes are used. Indicator (5) is illuminated when this control is used.

23. Loudness

The loudness control automatically boosts low frequencies at relatively low volumes and becomes inoperative when the threshold volume is exceeded. Indicator

(5) is illuminated when loudness is exercised.

24. Dolby ®

Dolby noise reduction system is introduced with operation of this switch but Dolby should only be used with Dolby compensated tapes. Indicator (5) will be "ON" when this mode is used.

® Registered trademark of Dolby Laboratories etc.

Cassette Operation

The cassette will operate even if the power switch is off.

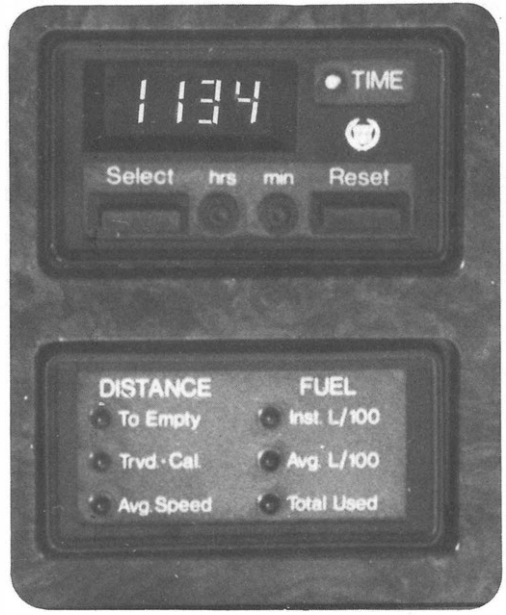
Insertion of the cassette is via a soft touch motor load mechanism to ensure correct cassette operation. The motor load mechanism draws the cassette into the unit therefore minimal insertion by the operator is required until the motor load mechanism takes control.

Antenna Operation

The automatic antenna fitted to DeVille and Caprice will extend to car roof height automatically after the ignition switch is turned to ON after a short delay. But only when the radio is also switched on. The antenna can then be further extended or lowered by the control switch on the instrument panel. When the ignition switch is turned off the antenna will retract automatically after a delay of 10 to 15 seconds.

To preserve the finish and permit the telescopic sections to be moved up and down with ease, clean the antenna occasionally with a wet cloth.

Trip Computer and Clock (where fitted)



The computer consists of two Modules:

— a Display Module which houses a 4 digit display, a time function plus Select and Reset buttons.

— a Function Select Module which lists six available functions.

To Operate the Trip Computer

— With the ignition in the off position it is possible to select the time function by depressing the "Select" button. The time display will automatically go out when the Select button is released.

— When ignition is turned on the display will automatically show time.

— Depressing the "Select" button will result in displaying the first function of the Function Select Module. Each time the "Select" button is pressed the computer goes to the next function. The functions are called up in the following sequence.

- Distance to empty (km)
- Distance travelled since reset (km)
- Average speed since reset (km/hr)
- Instantaneous fuel usage (litres/100 km)
- Average fuel usage since reset (litres/100 km)
- Total fuel used since reset (litres)
- Time.

The function being displayed on the Display Module is indicated by a red light opposite that function on the Function Select Module. While the "Select" button is depressed the display will show zero.

To reset the computer, firstly depress and hold the "Reset" button and then momentarily depress the "Select" button. Resetting will not affect the clock or Distance to empy function however, all other functions will go to zero.

The following is a detailed description on the operation of the trip computer and its functions.

Resetting

As explained earlier, resetting causes all functions to zero with the exception of clock and Distance to empty. The computer can be reset anytime, however, the following is considered normal practice:

— at each fuel tank refill. The computer will then give you results that are averaged out over each tank full of fuel.

— at beginning of a trip. This might involve many tank refills and results will then be computed over the total journey.

If the battery is disconnected and reconnected for some reason, the computer will need to be reset to ensure correct operation.

NOTE: An unintended reset may possibly occur due to external influences such as very high voltage power lines or some very powerful radio signals. This will not be detrimental to the subsequent operation of your trip computer.

Clock

The clock is a 12 hour clock with a flashing decimal point. When the battery is first connected the clock will show 12.00 and if 12.00 is not the correct time, appropriate setting is achieved by depressing the right hand flush button for minute adjustments and the left hand flush button for hours adjustment (use a pencil or like object to press flush buttons). It is suggested that minutes be adjusted prior to hours because as the minutes pass 60 the hours number automatically increases by one.

The clock can be accurately set as the next minute will not display until 60 seconds after releasing the adjustment button.

Distance to Empty (DTE)

The distance to empty function is an estimate on how much further the vehicle can be driven on the fuel remaining in the tank, based on the rate of fuel usage for the previous 15 minutes.

The DTE readout for any distance below 50 km will be in whole numbers. For DTE's above 50 km the readout will be in 5 km increments.

The DTE function can only be an estimate based on previously obtained information, therefore, as conditions become more suited for economical driving the distance to empty could increase.

After a fuel fill of 10 litres or more, in order to give a quick update, the computer will calculate the DTE over a short period of fuel usage (time taken to use approximately 0.3 litres). This quick estimate will not be as accurate as the normal long estimate based on rate of fuel usage for at least 15 minutes.

If for any reason the battery is disconnected and then reconnected the DTE will start at 500. The usual short update will then be given after consumption of approximately 0.3 litres of fuel.

Distance Travelled

This function shows the distance

travelled in kilometres since the computer was reset, it shows two decimal points up to 100 km and whole numbers thereafter.

The computer is automatically set with a calibration number of 625 that results in an accuracy of distance recording equal to that of the instrument odometer. For those people who wish to take full advantage of the accuracy of the Trip Computer (1 metre in 10 km) and calibrate their particular vehicle, the following procedure is to be followed:

(a) Line up the vehicle against a known marker e.g. centre pillar against a major highway distance marker

(b) Select trvd-cal mode

(c) Press left hand flush button (second from left) on the Display unit and display will go to zero

(d) Drive off and the display will increase in whole numbers

(e) Stop vehicle exactly 10 km from starting point e.g. centre pillar against a major highway distance marker 10 km from original shield

(f) Press right hand flush button and the last number shown will enter the computer memory as the calibration number.

The calibration number should be between 615 and 650 for standard vehicles, however, special tyres, gearbox, axle, tyre pressure, vehicle loading etc. will have a bearing on this number.

Depressing the right hand flush button any time the distance travelled/calibrate function is called up will display the calibration number. Note that by default the computer will set to a number of 625 for those who do not wish to undertake a specific calibration. Also, if the battery is disconnected and reconnected, the calibration will automatically set to 625. If required calibration number is known, select trav calibrate mode, press left hand flush button, drive vehicle until required calibration number is reached then press right hand flush button. Alternatively, recalibrate as described earlier.

Whilst in the calibrate mode i.e. after the left hand flush button is pressed and prior to depression of the right hand flush button, the "Select" button is disconnected as selection of other functions during the calibration procedure would affect the calibration number and computer distance functions would be inaccurate.

Average Speed

The average speed reading measures average speed since the computer was reset and only calculates this average speed whilst the ignition is on.

To enable the computer to collect enough data to calculate a sensible speed the display will show zero for the first minute after reset.

Reading is updated at one minute intervals.

Instantaneous Consumption

The instantaneous fuel consumption function reads in whole numbers only the litres per 100 km and updates at half second intervals.

When the vehicle is stationary the display shows zero, however, when slowing down to a stop due to fuel being used and a small distance being travelled, some large numbers may be displayed. Also when the function is first called up some large numbers may appear due to the small time frame over which the computation is prepared.

Average Consumption

The average fuel consumption calculates fuel usage since the last reset and reads in litres/100 km. It updates at approximately one minute intervals.

Fuel Used

Total fuel used since reset is measured in litres to a maximum of 999 litres.

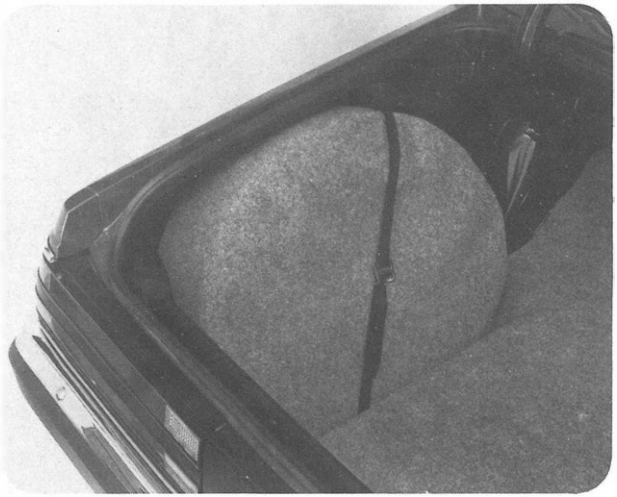
Section 3

Emergencies, Safety and Emission

Spare Wheel Storage

The spare wheel is stored in the left rear quarter panel of the luggage compartment and is retained by a strap. To release the spare wheel push the buckle upwards.

The jack assembly and tools are stored in a container located in the right rear quarter panel and are concealed by the carpet.



Removing the Wheel Trim

Wheel covers

To remove

Push the blade end of the wheel nut wrench between the wheel cover and the wheel and force it in about halfway.

Moving round the wheel, lightly pry the cover off at several points by twisting the wrench away from the tyre.

To replace

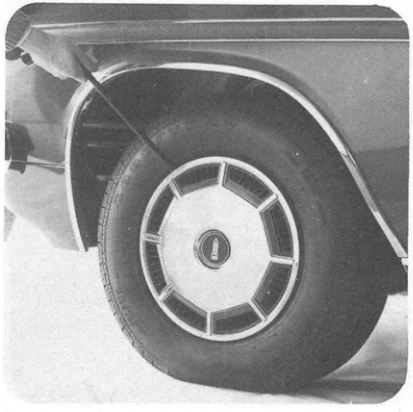
Position the wheel cover so that the valve extension protrudes through one of the slotted openings in the cover.

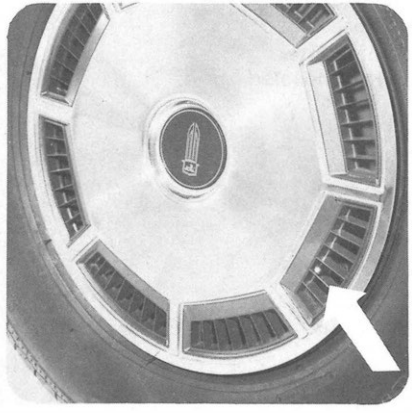
Seat the cover fully in the wheel rim at the lowermost point and knock the uppermost edge of the wheel cover into the wheel rim with the palm of your hand.

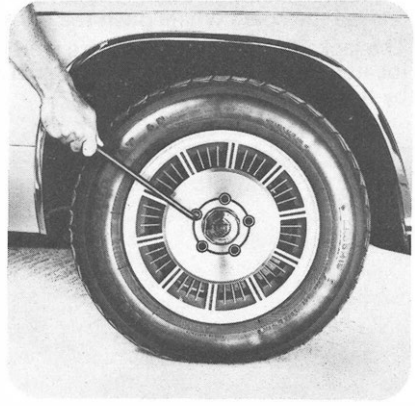
Ensure the trim is completely seated all around the rim.

Removing Caprice Wheels

To change the Caprice wheels insert the wrench provided in the hexagonal recesses and turn to loosen. The wheel changing sequence is then the same as for the models fitted with standard wheel nuts.







Wheel Changing

Safety Hints

1. Carefully follow jacking instructions in order to reduce the possibility of serious personal injury.
2. The jack is designed for use ONLY when changing wheels.
3. Never get beneath the vehicle when supported by the jack only.
4. Do not start or run the engine while the vehicle is on the jack only.
5. All Passengers should be out of the vehicle when it is on the jack and the handbrake should be firmly applied.

Instructions

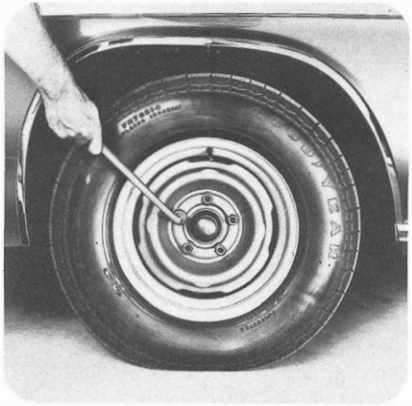
Put on the parking brake and put the car in Park.

Remove the tools and spare wheel.

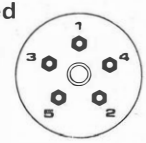
Remove the wheel trim, except for alloy wheels and loosen the wheel nuts slightly. Don't remove them. Put the jack under the car as shown and work the handle back and forth to raise the car off the ground. Jacking recesses are located in the vehicle body behind both front wheel arches and in front of the rear wheel arches.

Remove the wheel nuts and change the wheel.

Tighten the wheel nuts with your fingers then with the wrench in the order shown. Lower the car and tighten the wheel nuts again with the wrench. As soon as possible have the wheel nuts checked for correct tightness.



CAUTION: As soon as practicable, after a wheel change, the wheel nut torques should be checked at a GMH Dealership, or by a competent person, to ensure correct tightness. Refer page 90 for wheel nut torque specifications.



Wheel Nut Tightening Sequence

Engine Overheating

CAUTION:
If the engine should overheat, as indicated by the Temperature Gauge reading (see page 37) or if you have any other reason to suspect there is a serious overheat condition immediate action is required as outlined in the following section. Continued operation of the engine EVEN FOR A SHORT TIME could result in a fire and the possibility of personal injury and/or severe vehicle damage.

If you can see or hear steam escaping from the engine compartment or have other reason to suspect there is a serious overheat condition, stop and park the vehicle as soon as it is safe to do so and then turn off the engine immediately and get out of the vehicle.

Do not open the engine hood if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the hood.

While the engine is cooling, check your fan belt for slipping or breakage and check that the fan turns when the engine is cranked.

Look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump.

Take care when checking all these components as they will probably still be hot.

If you find major leaks or spot other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected.

If you do not find a leak or other problem then you should check the level of coolant in the radiator.

CAUTION: Do Not remove the radiator cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which is likely to cause serious personal injury.

When the engine has cooled sufficiently, remove the radiator cap as follows:

Cover the radiator cap with a thick cloth and turn it slowly to the left until it reaches a "stop". Do not press down while turning the cap.

Wait until any remaining pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it to the left until it can be removed. Check the coolant level and add water if necessary with the engine idling. Top up recovery reservoir if required.

After taking one or more of the actions above and once the Temperature Gauge no longer signals an overheat condition you can resume driving at a reduced speed. Return to normal driving after about 10 minutes if the Temperature Gauge does not again show an overheat condition.

If overheating occurs again you should have the vehicle attended to as soon as possible by a qualified mechanic.

NOTE:
Your vehicles engine may temporarily operate at high temperature during more demanding operating conditions especially on very hot days. These conditions include:—

- climbing a long hill
- stopping immediately after high speed driving
- idling for long periods in traffic or
- towing a heavily laden trailer or caravan.

You should avoid operating your vehicle for prolonged periods in any of the above circumstances if the Temperature Gauge indicates high engine coolant temperature.

Refer to description of the "Engine Coolant System" page 110 which gives maintenance instructions to help protect your cooling system from overheating.

Caravan or Trailer Towing

IMPORTANT: Your Car is designed primarily as a passenger vehicle so handling, durability and economy may be affected by towing a caravan or trailer.

Before you even think about doing this, check that the correct equipment is fitted to your vehicle. Your GMH Dealer will help you.

Never exceed the loadings given in the table on page 63.

Running-in Period

It is best to drive your new Vehicle for 1500 kilometres before towing a load. If you must tow before this do not exceed 80 km/h.

The same applies if you have a new or reconditioned engine, transmission or rear axle.

Maintenance — Automatic Transmission

More frequent vehicle maintenance is required when using your vehicle to pull a trailer. Where an automatic transmission is fitted the transmission fluid will need to be changed every 12 months or 20,000 kilometres.

Tongue Load

Your Vehicle-caravan combination will handle best if the load at the attachment coupling is kept within the limits specified on page 63.

The load imposed on the towbar ball must be included in the maximum rear axle loading and the maximum loaded vehicle weight, (refer chart—page 65) unless a load equalising hitch is used which fully compensates for towbar ball load by restoring the towbar tongue height to the unhitched position.

If you don't have an equalising load levelling hitch fitted then the load in the rear compartment should be reduced an amount equal to the load on the coupling (i.e. 10% of caravan weight).

If an equalising load levelling hitch is fitted you don't need to reduce the load.

Tyres

When towing, your tyres should be inflated to the maximum recommended pressure.

Electrical connection

A special wiring harness is available from your GMH dealer or accessories stockist. This is the only system recommended by GMH and use of any other may affect your warranty.

DANGER: If you remove your tow bar be sure to have any mounting holes properly sealed. Dangerous exhaust fumes can enter through these holes.

Safe Towing

- Your vehicle will handle differently with a load behind. It's a good idea to make a couple of short distance trips with the caravan or trailer before you set off on the big one.
- Have your engine tuned before you leave.
- You should have an extended-arm mirror on **both** sides of the vehicle.
- Headlights should be re-aimed after the loaded caravan has been hitched up.
- Use a lower gear, rather than your brakes, when going down steep hills.
- If your caravan or trailer runs off the road behind you — and this is fairly common — allow the left wheels of the vehicle to run off as well. Then wait for an opportunity to steer back on to the road. A sudden attempt to steer back will make you swerve dangerously.

WARNING: It is not recommended that the Cruise Control is operated whilst towing.

CAUTIONS:

1. A frame mounted equalizing hitch with a sway control of sufficient capacity is required for trailers over 900 kg loaded weight on all models.

2. Do not use axle-mounted hitches. They can cause damage to the axle housing, wheel bearings, wheels or tyres.

3. Trailer brakes are required on trailers over 500 kg loaded weight except where State Laws may specify a lower limit. Some States specify the maximum load to be towed must not exceed the vehicle weight.

4. It is permissible to tap into the rear brake system with a unit using not more than ·21cc of fluid. It must not be fitted to the front brake system.

5. CAUTION: WHENEVER A TOWBAR IS REMOVED BE CERTAIN TO HAVE ANY MOUNTING HOLES IN THE UNDERBODY PROPERLY SEALED TO PREVENT THE POSSIBLE ENTRY OF EXHAUST FUMES, DUST AND WATER.

Permissible Operating Loads

Before contemplating the towing of a trailer or caravan, it is necessary to check that the correct equipment is fitted to the vehicle to cover both the legal and manufacturer's requirements. Therefore, the matter should be discussed with your local Authority and a GMH Dealer.

APPLICATION	MAXIMUM TRAILER WEIGHT (TARE WEIGHT PLUS ALL LOAD)
"A". No brakes fitted to trailer.	500 kg
"B". Fitted with independently operated trailer brakes and a standard GM P & A tow-bar	900 kg
"C". Fitted with an independent driver operated trailer brake system and an equalizing load trailer hitch. (The vendor who markets such a Heavy Tow Bar is responsible for this application.) *This may exceed some States Regulations	1800 kg*

Loading Your Vehicle

Overloading is a safety hazard and could also shorten the life of your vehicle or its parts. Your GMH Dealer can advise you about maximum loading limits for your particular vehicle.

Tyre Maximum Load Rating and Maximum Vehicle Loading

Kerb weight is the weight of an unloaded vehicle which includes the weight of all coolants and lubricants together with a full tank of fuel. It must be understood that the maximum load rating shown on the tyre placard is not an actual load capacity that can be used for each wheel.

While the tyre manufacturers rate the tyre for this load application at the maximum pressure shown on the placard, the vehicle manufacturer's suspension, ride and handling characteristics must be taken into account. Therefore, the maximum rear axle loading or the maximum loaded vehicle weight should not be exceeded.

Towbar Loads

The load imposed on the towbar ball must be included in the maximum rear axle loading and the maximum loaded vehicle weight, (refer page 61) unless a load equalising hitch is used which fully compensates for towbar ball load by restoring the towbar tongue height to the unhitched position.

Roof Rack Loads

No increase in maximum loaded vehicle weight is allowable where a roof rack is fitted. It must be understood that roof rack loads alter the handling characteristics of a vehicle due to a change in the centre of gravity. When carrying loads on the roof rack avoid abrupt swerving or sharp steering manoeuvres. The load should be evenly distributed and should be not more than 68 kg.

Booster Springs and Superlift Shock absorbers

The use of booster springs or superlift shock absorbers DOES NOT increase the load capacity of the vehicle.

The maximum loads shown in the chart below must NOT be exceeded if overloading of axle components and the consequent shortening of service life is to be avoided.

Superlift shock absorbers do allow adjustment of the vehicle's height, so that improved ride and handling and better ground clearance in rough terrain may be obtained when running heavily laden.

CAUTION: Do not drive the car with superlift shock absorbers inflated when the car is unladen (car should be at normal trim level) as vehicle handling is affected.

Vehicle Weight Chart

Model		Estimated Kerb Weight kg.	Maximum Axle Capacities kg.	Gross Vehicle Mass kg.
			FRONT REAR	
De Ville	6 Passengers	1633	1053 1141	2175
	5 Passengers	1647	1027 1095	2106
Caprice		1689	1027 1117	2129

NOTE: The estimated kerb weight represents a standard vehicle without options but with a full tank of petrol.
At all times the total of the front axle load and the rear axle load should not exceed the maximum loaded vehicle weight.

Towing a Disabled Vehicle

1. Towing by Tow Truck

The vehicle should be raised until the lifted wheels are a minimum of 10 cm from the ground, care should be taken to ensure adequate ground clearance at the opposite end of the vehicle.

IN cases of rear end damage it may be necessary to lift the rear end of the vehicle and tow on the front wheels only. In such cases the steering wheel must be clamped in the straight ahead position using a clamping device designed for towing service use, such as those provided by towing equipment manufacturers. Do not use the vehicle's steering column lock for this purpose.

2. Towing by a Tow Rope Type attachment

The tow rope and safety chains must be attached to the front axle. Make certain that the rope attachment to the tow vehicle is as low as possible.

For the sake of safety and to prevent damage to the vehicle and tow rope it is advisable to avoid jerky movements and to drive slowly during towing operations.

It is always preferable to have a vehicle towed by a tow truck. If this is not possible heed the following cautions.

Never tow a vehicle on four wheels with the ignition switch in LOCK or ACC.

Never tow a vehicle at speeds over 80 km/h.

Power assisted brakes, refer page 30

Don't attach lifting hooks or chains to bumper bars or bumper brackets, or to any damaged part of the vehicle.

Only the driver should be in a towed vehicle.

Vehicles with damaged transmissions must not be towed unless the propeller shaft has been removed.

Automatic vehicles must not be towed for more than 55 km or at over 55 km/h unless the propeller shaft is removed.

Emergency Starting

Automatic Transmissions

If for any reason the starter motor is inoperative, it is **not possible** with an automatic transmission to push start the vehicle.

If the fault is a flat battery, the engine can be started with the aid of a booster battery. (Refer Starting with Jumper Leads.)

Starting with Jumper Leads

The following procedure is for use **only** under the following conditions. Departures from these conditions and procedures, could result in: (1) serious personal injury (particularly to eyes) or property damage from such things as battery explosion, battery acid or electrical burns, or (2) damage to electronic components in either vehicle. If all the conditions cannot be met, or if you are uncertain about them, we strongly recommend for your safety and that of your vehicle that you leave the starting to a competent mechanic.

The battery in the other vehicle (booster battery) must be of the **same nominal voltage**, 12 volts and must be negatively grounded. The nominal voltage and grounding of the other vehicle's battery may be determined by checking the specifications in its owner's manual. Use of a booster battery of a higher nominal voltage, or which is positively grounded may result in serious personal injury or property damage.

CAUTION: Never expose a battery to open flame or electric spark — battery action generates hydrogen gas which is flammable and explosive. Don't allow battery fluid to contact eyes, skin, fabrics, or painted surfaces. The fluid is a sulphuric acid solution which could cause serious personal injury or property damage. Flush any contacted area immediately with water. Wear eye protection such as industrial safety spectacles or goggles when working on or near battery. Remove rings, metal watch bands and other metal jewellery before jump starting or working around a battery. Be careful in using metal tools and equipment. If such metal should contact the positive battery terminal (or metal in contact with it) and any other metal on the vehicle a short circuit may occur which could cause personal injury. Batteries and battery acid should always be kept out of reach of children.

To Jump Start

1. Position the two vehicles so they are **not** touching and set the parking brakes. Place the automatic transmission in PARK (**NEUTRAL for manual transmission**) in each vehicle. Also turn off lights, heater and all other unnecessary electrical loads.
2. Attach one end of one jumper cable to the positive terminal of the **booster battery** (identified by a red colour, + or P on the battery case, post or clamp) and the other end of the same cable to the positive terminal of the **discharged battery**.
3. Attach one end of the remaining negative cable to the negative terminal (black colour, — or N) of the **booster battery**, and the other end to your vehicle according to the illustration opposite (**do not connect directly to negative post of dead battery**) taking care that the clamps from one cable do not inadvertently touch the clamps on the other cable. Do not lean over the battery when making this connection.
4. Start the engine in the vehicle that is providing the jump start (if it was not running). Let it run a few minutes, then start the engine in the vehicle with the discharged battery.
5. Reverse the above sequence exactly when removing the jumper cables.

8 Cylinder Engine. The final earth connection is onto the thermostat housing retaining bolt.

Emission Control Systems

IMPORTANT: This is an explanation of the operation of the emission control systems fitted to your new vehicle.

Introduction

There are three areas from which pollutants are emitted on an uncontrolled vehicle:

(a) Exhaust System

(b) Crankcase

(c) Fuel System

A number of modifications have been made by General Motors-Holden's Limited to control the amount of pollutants emitted from your new vehicle.

The systems are very complex in their operaton and this Handbook has been produced to assist you in understanding their function by briefly explaining the operation of the various components involved.

Sources of Emissions

During the combustion process in an automotive engine, some of the fuel (hydrocarbons) fails to burn and is discharged into the engine crankcase or exhaust system. Additional hydrocarbons are emitted into the atmosphere through evaporation of petrol vapours from the fuel tank and carburettor. Of the total hydrocarbons coming from uncontrolled automobiles, about 25% are emitted from the crankcase, 20% from the fuel system and 55% from the engine exhaust.

In addition to hydrocarbons, carbon monoixide and oxides of nitrogen are also formed during the combustion process. These are also discharged into the exhaust system.

Since research on the control of vehicle emissions first began General Motors world-wide resources have developed a number of control systems which are highly effective in reducing undesirable emissions. These systems are discussed in this publication.

Control of hydrocarbon emissions is important since, when subjected to sunlight under certain conditions, they may react with other gases to form photochemical smog. Carbon monoxide does not enter into the complex of photochemical smog reaction, but it is itself a pollutant and, thus, has been controlled to prevent high atmospheric concentrations.

Exhaust Emissions

The exhaust of a petrol automobile engine contains three significant air pollutants; carbon monoxide, unburned hydrocarbons, and oxides of nitrogen. It also contains small amounts of solid matter — called particulates — made up largely of lead compounds from the tetraethyl lead used to increase the octane rating of petrol.

Exhaust Emission Control Systems

Controlled Combustion System (CCS) Components

CARBURETTOR

The carburettor has been calibrated to give a leaner mixture of a better quality, particularly at idle or during slow speed operation.

IDLE STOP SOLENOID

The idle stop solenoid allows the throttle valve to close almost completely from the normal engine idle position and so starves the engine of fuel and air, this feature assists in reducing the possibility of engine run-on. The solenoid is de-activated when the ignition switch is turned off. As the operation of the idle solenoid determines the engine idle speed it is important that the accelerator is depressed about half way down while the engine is being started. Refer to the recommended starting procedure in the main part of the Owner's Handbook.

AUTOMATIC CHOKE

The automatic choke is operated by a bi-metallic coil, which is heated by exhaust ghas drawn from the exhaust cross-over passage that runs through the inlet manifold. As the coil heats up the choke progressively comes out of operation.

The choke secondary vacuum break is a new feature which provides for increased choke action in cold weather for good driveability. In warm weather the choke action is reduced to prevent stalling. Lower CO and HC emission during warm weather starts result.

This feature is in addition to the main or primary vacuum break whose purpose is to open the choke on cold weather starts to a point where the engine will run without loading or stalling.

COOLING SYSTEM THERMOSTAT

The thermostat opening temperature is calibrated to meet the requirements of the system during the engine warm-up.

Ignition System

The new electronic ignition system provides the high output necessary to fire a spark across the wider plug gaps to burn the leaner fuel mixtures.

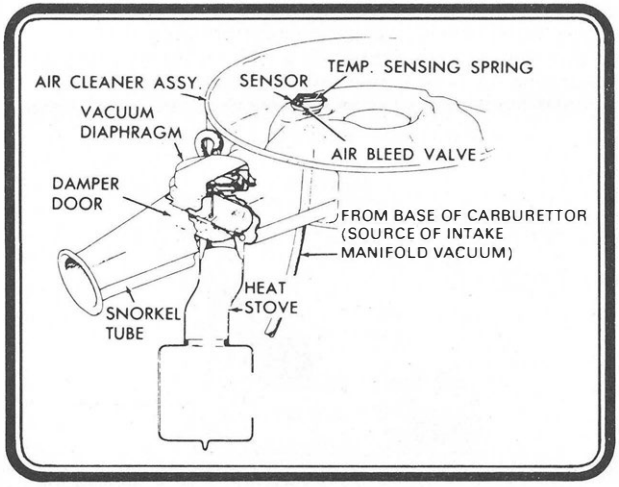
The advance curve of the ignition distributor is designed to meet the emission limits.

Air Pre-Heat (A.P.H.) System

This system provides a supply of pre-heated air to the carburettor until the engine compartment air temperature reaches a pre-set level.

Pre-heated air is supplied from the exhaust manifold heat stove via the hot air duct to the underside of the air cleaner assembly snorkel. A thermal vacuum valve controls the operation of a vacuum motor which operates the control damper assembly, and this regulates the amount of air supplied from the exhaust manifold stove.

The installation of this system ensures better engine response during the engine warm-up period also leaner fuel settings can be used, which assist in reducing engine emissions.



Early Fuel Evaporation (EFE) System

The EFE system is used to provide a source of rapid heat to the engine induction system during cold driveaway. Rapid heating is desirable because it provides for quick fuel evaporation and more uniform fuel distribution to aid cold driveability. It also reduces the length of time carburettor choking is required making reduction in exhaust emission levels possible.

The system uses a valve which encreases the exhaust gas flow under the intake manifold during cold engine operation. The valve is vacuum operated and is controlled by a thermal vacuum switch (TVS) which passes vacuum to the valve when the coolant temperature is below the calibration value.

Vacuum Advance Control (V.A.C.) System

The basis of this system is the control of the vacuum available to the distributor's vacuum advance mechanism dependent on operating conditions.

The system includes the following three components:—

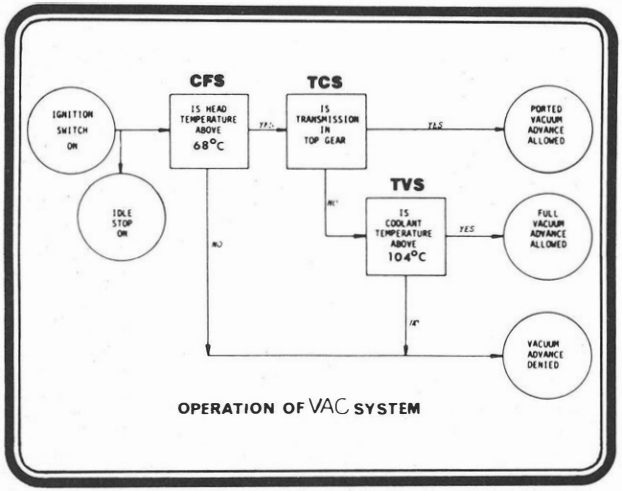
(a) Cold Feed Switch (C.F.S.)

(b) Transmission Control Spark System (T.C.S.)

(c) Thermal Vacuum Switch (T.V.S.)

Cold Feed Switch: (C.F.S.)

Vacuumadvance is denied to the distributor during engine warm-up. When the cylinder head temperature reaches 68°C the switch closes allowing vacuum to the Transmission Control Spark System.



OPERATION OF VAC SYSTEM

Transmission Control Spark System: (T.C.S.)

When the transmission is in top gear, ported vacuum is allowed to the distributor.

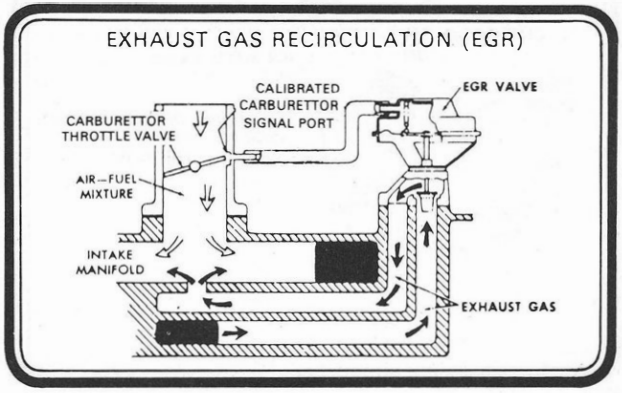
Thermal Vacuum Switch: (T.V.S.)

When the cooling water temperature reaches 104°C, the T.V.S. directs full vacuum to the distributor allowing the engine to run cooler at idle and in the low gears.

Exhaust Gas Recirculation (E.G.R.) System

This system introduces controlled quantities of exhaust gas into the inlet manifold resulting in lower peak combustion temperatures in the combustion process which, in turn, reduces the formation of nitrogen oxides.

A thermal vacuum switch (valve) opens the vacuum line to the exhaust gas recirculation valve only after the engine coolant has reached a predetermined temperature at which time the E.G.R. valve is subject to the engine vacuum signal from the carburettor.



Crankcase Emissions

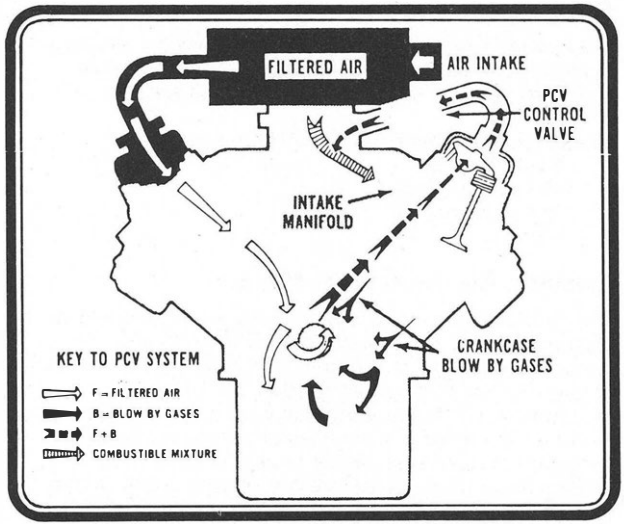
Emission of hydrocarbons from the engine crankcase is another source of automotive air pollution. This emission occurs in the following manner.

During the combustion process in all petrol engines, some gases escape past the piston rings and into the crankcase. These gases consist largely of unburned fuel. This "blow-by" occurs because of the very high pressures in the combustion chambers.

Crankcase Emission Control System

Positive Crankcase Ventilation (P.C.V.) System

The purpose of the system is to draw the blow-by gases out of the crankcase, into the intale manifold system and thus recycle these gases through the combustion process in the cylinders.



Air is drawn through a filter in the air cleaner and on down through the crankcase where it mixes with the crankcase gases caused by engine blow-by. From here the gases are drawn from the crankcase via a spring-loaded, vacuum control valve into the inlet manifold to be burned in the normal combustion process.

Evaporative Emissions

Another source of emissions from automobiles is evaporation of petrol. This occurs, not only when the fuel tank is being filled, but at other times, even when the vehicle is not in operation. Special systems to control evaporation have recently been developed, and are now installed on all vehicles.

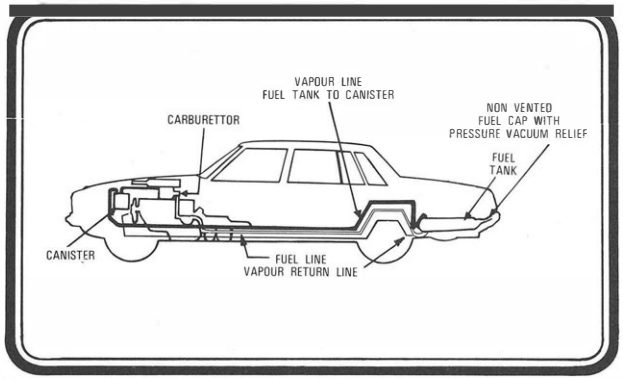
Evaporative Emission Control (E.E.C.) System

The heart of this system is the canister in the engine compartment, which contains activated charcoal granules.

When the engine is not running, fuel vapours from the fuel tank are prevented from entering the atmosphere by the charcoal in the canister where they are absorbed.

A vacuum purge line connects the canister to the inlet manifold via the carburettor. When the engine is running the vacuum draws air into the canister, and the absorbed fuel vapour is drawn from the charcoal, forming a mixture with the air which is burnt in the engine combustion process.

The venting system of the fuel tank incorporates a liquid/vapour separator and a non-vented fuel tank cap. Integral in the cap is a pressure/vacuum relief valve to cater for any differences of pressure or vacuum that may arise.



Maintenance

The required owner emission control systems maintenance operations presented in the Owner Guide and Service Manual should be performed by an authorized GMH Dealer or any other qualified service outlet which regularly performs such services.

Vehicle Operations

The maintenance instructions contained in the Owner Guide, provided with the vehicle, are based on the assumption that your vehicle will be used as designed and is operated in accordance with the instruction provided in the Owner Manual.

Service Manuals

Service manuals, providing greater detail on emission systems, are available for purchase by owners who desire to perform their own vehicle maintenance.

These are available from a GMH Dealer or from:

Stan H. Earle,
46 Isabella Street,
Moorabbin 3189
Victoria

Service Replacement Parts

The emission control systems of your new vehicle were designed, built and tested using GM parts and the vehicle is certified as being in conformity with Australian Design Rules covering emissions. Accordingly, it is recommended that any replacement parts used for required maintenance services or for the repair of emission control systems be new GM parts. Use of replacement parts which are not of equivalent quality may impair the effectiveness of such systems.

Engine Identification

The type and capacity of the engine fitted to your new vehicle can be easily identified by the Engine Number prefix. This is usually on the registration label or on the engine block as indicated below.

Engine Number Prefix

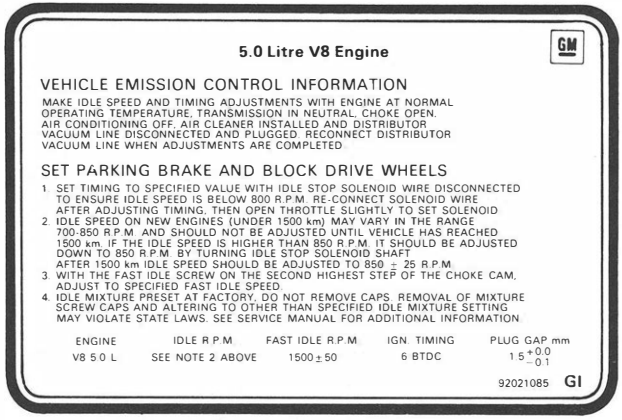
Eight Cylinder

WT — 5.0 Litre

Stamped on a pad on the left hand side (Passenger's side) at the front of the cylinder block above the engine mounting.

Vehicle Emission Control Information Label

This label is located on the underside of the engine hood and provides all relative specifications required to correctly tune the engine of your new vehicle.



5.0 Litre V8 Engine

GM

VEHICLE EMISSION CONTROL INFORMATION

MAKE IDLE SPEED AND TIMING ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, TRANSMISSION IN NEUTRAL, CHOKE OPEN, AIR CONDITIONING OFF, AIR CLEANER INSTALLED AND DISTRIBUTOR VACUUM LINE DISCONNECTED AND PLUGGED. RECONNECT DISTRIBUTOR VACUUM LINE WHEN ADJUSTMENTS ARE COMPLETED.

SET PARKING BRAKE AND BLOCK DRIVE WHEELS

1. SET TIMING TO SPECIFIED VALUE WITH IDLE STOP SOLENOID WIRE DISCONNECTED TO ENSURE IDLE SPEED IS BELOW 800 R.P.M. RE-CONNECT SOLENOID WIRE AFTER ADJUSTING TIMING, THEN OPEN THROTTLE SLIGHTLY TO SET SOLENOID.
2. IDLE SPEED ON NEW ENGINES (UNDER 1500 km) MAY VARY IN THE RANGE 700-850 R.P.M. AND SHOULD NOT BE ADJUSTED UNTIL VEHICLE HAS REACHED 1500 km. IF THE IDLE SPEED IS HIGHER THAN 850 R.P.M. IT SHOULD BE ADJUSTED DOWN TO 850 R.P.M. BY TURNING IDLE STOP SOLENOID SHAFT. AFTER 1500 km IDLE SPEED SHOULD BE ADJUSTED TO 850 ± 25 R.P.M.
3. WITH THE FAST IDLE SCREW ON THE SECOND HIGHEST STEP OF THE CHOKE CAM, ADJUST TO SPECIFIED FAST IDLE SPEED.
4. IDLE MIXTURE PRESET AT FACTORY, DO NOT REMOVE CAPS. REMOVAL OF MIXTURE SCREW CAPS AND ALTERING TO OTHER THAN SPECIFIED IDLE MIXTURE SETTING MAY VIOLATE STATE LAWS. SEE SERVICE MANUAL FOR ADDITIONAL INFORMATION.

ENGINE	IDLE R.P.M.	FAST IDLE R.P.M.	IGN. TIMING	PLUG GAP mm
V8 5.0 L	SEE NOTE 2 ABOVE	1500 ± 50	6 BTDC	$1.5^{+0.0}_{-0.1}$

92021085 GI

Section 4: Owner Relations and Authorised GMH Dealers

We want you to be happy with your new Vehicle and with the people you deal with while you have the vehicle.

Normally, any problems which may arise with the sales transaction, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service department.

We realise however that, with the best intentions, misunderstandings do occur sometimes.

If you have a problem that has not been settled to your satisfaction here's what to do:

Step 1:

Discuss the problem with one of the Dealer's management people. If you feel you haven't got satisfaction from the Sales Manager or Service Manager — go to the General Manager or the Dealer himself.

Step 2:

If it seems that no-one at the dealership can help fully, write to the Zone Owner Relations Manager in your State outlining your problem and including your name, address and telephone number; the vehicle model number and vehicle identification number; the vehicle delivery date and odometer reading and the Dealer's name and address. This information will be on your Warranty Certificate.

Step 3:

By now you should have satisfaction. If not, you can write to the National Owner Relations Manager, GMH Sales Pty Ltd, Box 548D, G.P.O., Melbourne 3001.

Always try to sort things out at the Dealership. Owner Relations managers will have to refer the problem back to the Dealer.

GMH
Owner Relations Managers

QUEENSLAND
General Motors-Holden's Sales Pty. Ltd.,
Box 728, G.P.O.,
BRISBANE, QLD. 4001.

NEW SOUTH WALES AND AUSTRALIAN CAPITAL TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 481, P.O.,
EDGECLIFF, N.S.W. 2027.

VICTORIA AND TASMANIA
General Motors-Holden's Sales Pty. Ltd.,
Victorian Zone Service Division,
Box 548D, G.P.O.,
MELBOURNE 3001.

SOUTH AUSTRALIA AND NORTHERN TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 221, P.O.,
ELIZABETH, S.A. 5112.

WESTERN AUSTRALIA
General Motors—Holden's Sales Pty. Ltd.,
P.O. Box 426,
WEST PERTH, W.A. 6005.

Authorised GMH Dealers

(Note: Dealership names and locations listed are effective as at 1/5/83. These may change from time to time without notice)

NEW SOUTH WALES — Metropolitan Dealers

ARNCLIFFE
Suttons Motors (Arncliffe) Pty. Ltd.,
93 Princes Highway

ASHFIELD
Muirs Motors (Ashfield) Pty. Ltd.,
252 Parramatta Road

BALGOWLAH
Ross Hannon Holden
164 Condamine Street

BAULKHAM HILLS
Tony Packard Holden
Cnr. Victoria Avenue & Windsor Road

BELMONT
Young & Green (Belmont) Pty. Ltd.,
444 Pacific Highway

BLACKTOWN
Townsend Motors
125 Main Street

CABRAMATTA
Ron Hodgson Holden
266 Hume Highway

CAMPBELLTOWN
Clintons Motors Pty. Ltd.,
3-17 Queen Street

CARDIFF
Brian Kelly Holden
35-39 Macquarie Road

CHATSWOOD
Sundell Holden
815-843 Pacific Highway

CHULLORA
Suttons Motors (Chullora) Pty. Ltd.,
Cnr. Hume Highway & Waterloo Road

CROW'S NEST
J. N. Caldwell (Holdings) Pty. Ltd.,
1 Alexander Street

DEE WHY
Graham Patching Holden
Cnr. May and Mooramba Roads

GOSFORD
MKL Gosford Motors Pty. Ltd.,
131 Henry Parry Drive

GOSFORD
Noble Motors
Pacific Highway

HOMEBUSH
Suttons Motors (Homebush)
112 Parramatta Road

HORNSBY
John A. Gilbert Pty. Ltd.,
90 Pacific Highway

KINGSFORD
John Pelligrini Holden
263-271 Anzac Parade

KINGSWOOD
W. L. Chapman Pty. Ltd.,
107-119 Gt. Western Highway

LAKEMBA
Nash Holden
1018 Canterbury Road

LIVERPOOL
A. C. McGrath & Company,
Cnr. Castlereagh St. & Hume Highway

LIVERPOOL
Pat Cullen's Garage,
324-360 Hume Highway

MIRANDA
Greg Ball Holden
1-3 Kiora Road

MOSMAN
Norman G. Booth Properties Ltd.,
501 Military Road

NEWCASTLE
Young & Green Pty. Ltd.,
745 Hunter Street

NEWPORT BEACH
Sundell Holden
Barrenjoey Road

PADSTOW
Purnell Bros. Holden
19 Davies Road

PARRAMATTA
Fair Deal Car Sales Parramatta
65 Church Street

PARRAMATTA
Hillsdon's Pty. Ltd.,
87 Church Street

PENNANT HILLS
Les Vagg Holden
351-355 Pennant Hills Road

RANDWICK
Boyded Randwick,
265 Avoca Street

ROCKDALE
C. V. Holland
571 Princes Highway

RYDE
Muirs Motors (Ryde) Pty. Ltd.,
603-605 Victoria Road

ST. MARY'S
Lance Motors Pty. Ltd.,
Corner Glossop & Harris Streets

SPRINGWOOD
Kerry's Motors Pty. Ltd.,
28 Great Western Highway

TORONTO
Young & Green (Toronto) Pty. Ltd.,
Carey Street

WINDSOR
Hawkesbury Valley Motors,
122 George Street.

WARILLA
Wilson's Warilla Pty. Ltd.,
29 Shellharbour Road

WOLLONGONG
Dwyers Pty. Ltd.,
31-33 Crown Street

WOLLONGONG
Boyded (North Wollongong)
Cnr Station & Flinders Streets **Pty. Ltd.,**

WYONG
W. M. Holden
Pacific Highway

NEW SOUTH WALES —

Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars—New for Addresses and Telephone Numbers.

- ADELONG
- ALBURY
- ARMIDALE
- BALLINA
- BARADINE
- BARHAM
- BARRABA

- BATHURST
- BEGA
- BELLINGEN
- BLAYNEY
- BOMBALA
- BOURKE
- BOWRAL
- BREWARRINA
- BROKEN HILL
- CANOWINDRA
- CASINO
- CESSNOCK
- COBAR
- COFF'S HARBOUR
- CONDOBOLIN
- COOLAMON
- COOMA
- COONABARABRAN
- COONAMBLE
- COOTAMUNDRA
- COROWA
- COWRA
- CROOKWELL
- CULCAIRN
- DENILIQUIN
- DORRIGO
- DUBBO
- DUNGOG
- EDEN
- FINLEY
- FORBES
- GILGANDRA
- GLEN INNES
- GLOUCESTER
- GOULBURN
- GRAFTON SOUTH
- GRENFELL
- GRIFFITH
- GULARGAMBONE
- GUNDAGAI
- GUNNEDAH
- GUNNING
- GUYRA
- HARDEN
- HAY
- HOLBROOK
- INVERELL
- JERILDERIE
- JUNEE
- KANDOS
- KATOOMBA
- KEMPSEY
- KIAMA
- KURRI KURRI
- KYOGLE
- LEETON
- LISMORE
- LITHGOW
- MACLEAN
- MACKSVILLE
- MAITLAND
- MILTON
- MOLONG
- MOREE
- MORUYA
- MOSS VALE
- MUDGEE
- MULLUMBIMBY
- MUNGINDI
- MURWILLUMBAH
- MUSWELLBROOK
- NARRABRI
- NARRANDERA
- NARROMINE
- NOWRA
- NYNGAN
- ORANGE
- PARKES
- PEAK HILL
- PORT MACQUARIE
- QUIRINDI
- TAMWORTH
- TAREE
- TEMORA
- TENTERFIELD
- TOTTENHAM
- TULLAMORE
- TUMBARUMBA
- TUMUT
- TWEED HEADS
- WAGGA
- WALCHA
- WALLA WALLA
- WALGETT
- WARIALDA
- WARREN
- WAUCHOPE
- WELLINGTON
- WEST WYALONG
- WINGHAM
- WOODENBONG
- YASS
- YOUNG

VICTORIA — Metropolitan Dealers

BENTLEIGH
Boyanton Holden
280 Centre Road

BERWICK
Ross Holden
Princes Highway

BRAYBROOK
Kevin Dennis Holden
272 Ballarat Road

BUNDOORA
Tony Davies Holden
413 Grimshaw Street

BURWOOD
Dustings Hillyer Holden
1200 Toorak Road

CAULFIELD
Booran Holden
1049 Glenhuntly Road

CHELSEA
Harrison Holden
370 Nepean Highway

CHELTENHAM
Balmoral Holden
1212 Nepean Highway

DANDENONG
Graeme Blanchard Holden
Princes Highway

DONCASTER
Lance Dixon Holden
601 Doncaster Road

ELSTERNWICK
Reg. Hunt Motors Pty. Ltd.,
77 Nepean Highway

ESSENDON
Preston Motors (Essendon) Pty. Ltd.,
201-211 Keilor Road

FAWKNER
M. & G. Mantello Holden
1263 Sydney Road

FERNTREE GULLY
Neilson Holden F.T.G.,
980 Burwood Road

FOOTSCRAY
Alan Mance Holden
435 Barkly Street

FRANKSTON
Bayside Holden
140 Dandenong Road

GEELONG
R. & B. Smith Pty. Ltd.,
510 Moorabool Street

GEELONG
Winter & Taylor (Sales) Pty. Ltd.,
23 Cavendish Street

GLEN WAVERLEY
Geoff Brady Holden
565-577 Springvale Road

HASTINGS
McRae Motors Pty. Ltd.,
762 Flinders Road

HEIDELBERG WEST
Arthur Ellis Holden
66 Bell Street

LILYDALE
Noel Dight Holden
Main Street

MORNINGTON
Peninsula Holden
Cnr Nepean Highway & Tyabb Road

OAKLEIGH
Garry & Warren Smith Pty. Ltd.,
1575 Dandenong Road

PRESTON
Graham Hunt Holden
518 High Street

RINGWOOD
Bill Patterson Holden
45-57 Maroondah Highway

SOUTH MELBOURNE
John Martin Holden
132 Sturt Street

WERRIBEE
Ballan Holden
Princes Highway

WEST MELBOURNE
Reg Hunt Holden
577 King Street

VICTORIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars— New for Addresses and Telephone Numbers.

- ALEXANDRA
- ARARAT
- BACCHUS MARSH
- BAIRNSDALE
- BALLARAT
- BENALLA
- BENDIGO
- BIRCHIP
- BOORT
- CAMPERDOWN
- CASTERTON
- CASTLEMAINE
- CHARLTON
- COBRAM
- COHUNA
- COLAC
- COLERAINE
- CORRYONG
- DAYLESFORD
- DIMBOOLA
- DONALD
- DROUIN
- ECHUCA
- EUROA
- FOSTER
- HAMILTON
- HEATHCOTE
- HOPETOUN
- HORSHAM
- KANIVA
- KERANG
- KOOWEERUP
- KORUMBURRA
- KYABRAM
- KYNETON
- LEONGATHA
- MAFFRA
- MANSFIELD
- MARYBOROUGH
- MILDURA
- MINYIP
- MORTLAKE
- MORWELL
- MURRAYVILLE
- NAGAMBIE
- NHILL
- NULLAWIL
- NYAH
- ORBOST
- OUYEN
- PORTLAND
- QUAMBATOOK
- RAINBOW
- ROCHESTER
- RUTHERGLEN
- SALE
- SEA LAKE
- SEYMOUR
- SHEPPARTON
- ST. ARNAUD
- STAWELL
- SWAN HILL
- TALLANGATTA
- TIMBOON
- TRARALGON
- UNDERBOOL
- WANGARATTA
- WARBURTON
- WARRACKNABEAL
- WARRNAMBOOL
- WODONGA
- WONTHAGGI
- WYCHEPROOF
- YARRAM
- YARRAWONGA

AUSTRALIAN CAPITAL TERRITORY

BELCONNEN
John Wright Holden
Josephson Street

BRADDON
Beazley & Bruce (ACT) Pty. Ltd.
44 Mort Street

PHILLIP
Commonwealth Motors Pty. Ltd.
158 Melrose Drive

QUEENSLAND — Metropolitan Dealers

ASPLEY
Zupps (Aspley) Pty. Ltd.,
1442 Gympie Road

CLEVELAND
Russell Smith Holden
Cnr Queen & Doig Streets

MOOROOKA
John Sivyer Holden
1060 Ipswich Road

MT. GRAVATT
Zupps Motors Pty. Ltd.,
1310 Logan Road

NEWSTEAD
Eagers Retail Pty. Ltd.,
95 Breakfast Creek Road

NUNDAH
Eagers (Northside)
1319 New Sandgate Road

PETRIE
North Pine Motors Pty. Ltd.,
Gympie Road

REDCLIFFE
Village Holden
425 Elizabeth Avenue

SPRINGWOOD
Midways Holden
Pacific Highway & Brennan St.

SALISBURY
Centenary Holden
135 Moggill Road

WINDSOR
Leach Motors
146 Newmarket Road

WYNNUM
Doug Barton Holden
200 Tingal Road

QUEENSLAND — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars—New for Addresses and Telephone Numbers.

- ATHERTON
- AUGATHELLA
- AYR
- BEAUDESERT
- BEENLEIGH
- BEERWAH
- BILOELA
- BOWEN
- BUNDABERG
- CABOOLTURE
- CAIRNS
- CALOUNDRA
- CHARLEVILLE
- CHARTERS TOWERS
- CLERMONT
- CLONCURRY
- CUNNAMULLA
- DALBY
- DIRRANBANDI
- EMERALD
- GATTON
- GAYNDAH
- GLADSTONE
- GOONDIWINDI
- GYMPIE
- INGHAM
- INNISFAIL
- IPSWICH
- JULIA CREEK
- KILCOY
- KINGAROY
- LAIDLEY
- LONGREACH
- MACKAY
- MAREEBA
- MARYBOROUGH
- MILES
- MONTO
- MOURA
- MT. ISA
- MURGON
- NAMBOUR
- NANANGO
- PROSERPINE
- QUILPIE
- ROCKHAMPTON
- ROMA
- SOUTHPORT
- SPRINGSURE
- STANTHORPE
- ST. GEORGE
- TARA

- TOOWOOMBA
- TOWNSVILLE
- TULLY
- WARWICK
- WINTON

SOUTH AUSTRALIA — Metropolitan Dealers

ADELAIDE
City Holden,
203-221 Grenfell Street

ELIZABETH
Peter Page Holden
Elizabeth Way

GLENELG
John H. Ellers Pty. Ltd.,
282 Brighton Road

MALVERN
Claridge Motors Pty. Ltd.,
361-367 Unley Road

MILE END
United Motors Retail
71 West Beach Road

PORT ADELAIDE
Smith Motor Co. Pty. Ltd.,
171 Commercial Road

VALLEY VIEW
Plaza Holden
817 839 North East Road

SOUTH AUSTRALIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars—New for Addresses and Telephone Numbers.

- BALAKLAVA
- BERRI
- BURRA
- CEDUNA
- CLEVE
- CRYSTAL BROOK
- CUMMINS
- GLADSTONE
- JAMESTOWN
- KADINA
- KEITH
- KINGSCOTE
- KINGSTON
- LAMEROO
- LOXTON
- MAITLAND
- MALLALA
- MENINGIE
- MILLICENT
- MINLATON
- MT. BARKER
- MT. GAMBIER
- MURRAY BRIDGE
- NARACOORTE
- ORRORO0
- PETERBOROUGH
- PORT AUGUSTA
- PORT LINCOLN
- PORT PIRIE
- QUORN
- RENMARK
- STRATHALBYN
- TANUNDA
- WAIKERIE
- WHYALLA
- WUDINNA
- YANKALILLA

WESTERN AUSTRALIA — Metropolitan Dealers

CANNINGTON
Brian Gardner Holden
1308 Albany Highway

FREMANTLE
Shack Motors
64 Queen Victoria Street

GOSNELLS
Lance Gibbons Holden
2325 Albany Highway

MELVILLE
Melville Motors Pty. Ltd.,
532-536 Canning Highway

MIDLAND
John Goldie Holden
161 Great Eastern Highway

MORLEY
Metro Motors Pty. Ltd.,
212 Walter Road

NAVAL BASE
Shack Motors Cockburn Pty. Ltd.,
Rockingham Road

OSBORNE PARK
North City
Cnr. Scarborough Beach Rd.
& Harbourne Street

PERTH
City Motors
505 Newcastle Street

VICTORIA PARK
Young's Holden
529 Albany Highway

WANNEROO
Phoenix Holden
316 Berriman Drive

WESTERN AUSTRALIA— Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars—New for addresses and Telephone Numbers.

- ALBANY
- BEVERLEY
- BOYUP BROOK
- BROOKTON
- BRUCE ROCK
- BUNBURY
- BUSSELTON
- **CARNAMAH**
- CARNARVON
- COLLIE
- CORRIGIN
- CRANBROOK
- DALWALLINU
- ESPERANCE
- GERALDTON
- GNOWANGERUP
- GOOMALLING
- KALGOORLIE
- KATANNING
- KELLERBERRIN
- KUNUNURRA
- MANDURAH
- MANJIMUP
- MERREDIN
- MOORA
- MORAWA
- NAREMBEEN
- NARROGIN
- NORTHAM
- PINGELLY
- PORT HEDLAND
- QUAIRADING
- WAGIN
- WYALKATCHEM

TASMANIA — Metropolitan & Country Dealers & Service Dealers

HOBART
Motors Pty. Ltd.,
179 Macquarie Street

BURNIE
Motors Pty. Ltd.,
84-89 Marine Terrace

DEVONPORT
Motors Pty. Ltd.,
628 Victoria Parade

KING ISLAND
King Island Motors Pty. Ltd.,
Netherby Road, Currie

LAUNCESTON
Motors Pty. Ltd.,
165 Brisbane Street

SMITHTON
Motors Pty. Ltd.,
16 Nelson Road

ULVERSTONE
Motors Pty. Ltd.,
99 Reibey Street

NORTHERN TERRITORY — Dealers

ALICE SPRINGS
Kittle Bros. (Alice Springs) Pty. Ltd.,
Cnr Wills Terrace & Railway Terrace

DARWIN
Suttons Motors (Darwin) Pty. Ltd.,
Cnr. Mitchell and Knuckey Streets

Section 5: Specifications

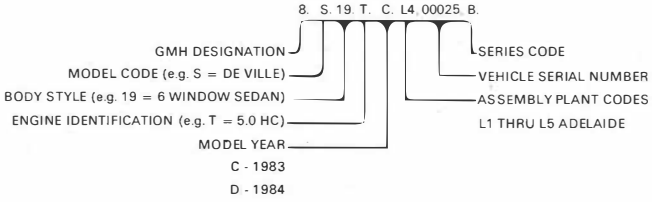
Serial Numbers

V.I.N. Plate

(Vehicle Identification Number)

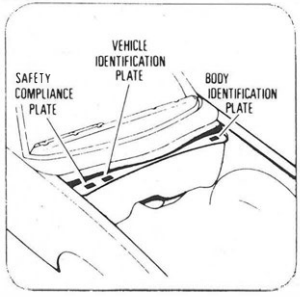
Attached to the top shroud ledge of the dash panel on the right hand side (Driver's side) under the engine hood.

The table below gives a breakdown of the V.I.N. and the meaning of each section.


8. S. 19 T. C. L4 00025 B.
GMH DESIGNATION
MODEL CODE (e.g. S = DE VILLE)
BODY STYLE (e.g. 19 = 6 WINDOW SEDAN)
ENGINE IDENTIFICATION (e.g. T = 5.0 HC)
MODEL YEAR
C - 1983
D - 1984
SERIES CODE
VEHICLE SERIAL NUMBER
ASSEMBLY PLANT CODES
L1 THRU L5 ADELAIDE

Safety Compliance Plate

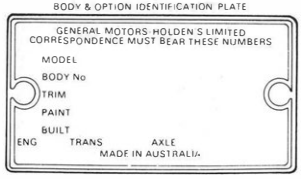
Attached to the top ledge of the dash panel on the right hand side (Driver's side) under the engine hood, shows vehicle Series, Model, Style, Month and Year of production, Vehicle Serial Number, approved seating capacity, and the Australian Design Rules to which the vehicle complies.



Body and Option Identification Plate

Attached to the top shroud ledge of the dash panel on the left hand side (Passenger's side) under the engine hood. Plate shows body styles, body serial number, paint and trim colour combination, paint number, Engine, Transmission and Axle Ratio Options.

The Built Date is defined as "The date of manufacture" by calendar month and year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.



Model Identification

Model Range	Model Group	Style* Number	V.I.N. Code Number
DeVille	8W	S19	L1-L5
Caprice	8W	T19	L1-L5

* *Note:* Model group and style numbers may have 3 numbers following. These refer to option packs.

Vehicle Serial Number
(Chassis Number)
Stamped on a paint free zone on the top face of the right hand frame member at the front end—access under the engine hood.

Engine Number Prefixes
Eight Cylinder
WT—5.0 litre.

Stamped on a pad on the left hand side (Passenger's side) at the front of the cylinder block above the engine mounting.

Vehicle Dimensions/Weights

	DeVILLE		CAPRICE
OVERALL LENGTH	5157 mm		5157 mm
OVERALL WIDTH	1899 mm		1899 mm
OVERALL HEIGHT	1391 mm		1390 mm
MINIMUM GROUND CLEARANCE	128 mm		127 mm
WHEELBASE	2895.5 mm		2895.5 mm
TRACK—FRONT TRACK—REAR	1523 1536 mm		1531 1540.5 mm
CURB MASS	5 PASSENGERS	6 PASSENGERS	
KGS.	1647	1633	1689

Wheel Nut Torques
Recommended Wheel Nut Torque is 100-108 Nm. (75-80 ft. lbs.)

Engine Data

Engine Designation	5.0 litre
Piston Disp. Nom. — Cu. Cms.	5044
Comp. Ratio	9.2
Petrol Research Octane Rating	97
Bore/Stroke mm	101.600 x 77.775
RAC Rating	51.2
Max. Power Kilowatts Din @ R.P.M.	126 @ 4400
Max. Torque Nm Din @ R.P.M.	361 @ 2800
Cylinder Numbering (Front to Rear)	RH Bank 1 3 5 7 LH Bank 2 4 6 8
Firing Order	1 2 7 8 4 5 6 3

CAPACITIES

		Litres
Fuel Tank		91
Cooling System		approx. 11.3 l
Pressure rating of radiator cap		103 kPa (15 psi)
Engine Oil		
Service refill		(b) 4.0
Add for filter—Type PF10		(b) 0.9
—Type X96		(b) 0.3
Automatic Transmission		
Service refill	approx.	(b) 3.7
Dry		(a) (b) 10.4
Rear Axle		(a) 1.4

(a)—Only at Overhaul
(b)—Use oil level for final check

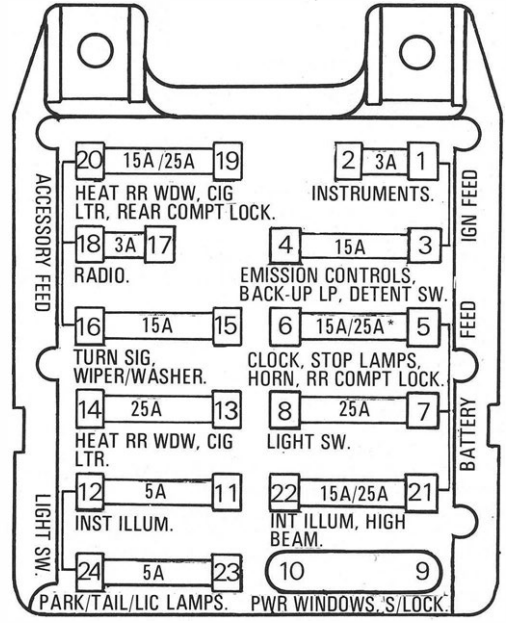
FUSE SYSTEM

Fuses

The fuse block is located behind a flush fitting cover at the lower right hand corner of the instrument panel, adjacent to the hood release. To gain access to the fuses remove the cover by using the recess provided. The fuses can be identified by referring to the fuse layout on the reverse side of the cover.
If after replacing a burnt-out fuse, the new fuse burns out, this indicates that the fuse is still overloaded. The cause of the fault should be located and rectified, preferably by a GMH Dealer.

Fusible Link

In order to reduce the possibility of a fire, whether due to electrical causes or an accident, the wiring harness is protected by the inclusion of a fusible link, located in the harness next to the starter motor. In case of a short circuit, the link will melt internally, disconnecting the battery by the fusing action. The encasing insulation has been specially designed to withstand the temperature and to contain the fused wires. Thus the fusible link provides a combined fuse and fire protection feature.
Headlamps when switched on via the light switch are through a different fuse to the High Beam Flash via the multi-function stalk. If the Headlamp fuse blows holding the stalk to high beam flash will turn headlamps onto high beam and allow the car to be driven to the roadside.



HEADLAMP AND BULB SPECIFICATIONS

Bulbs	GM Part Number	Power Rating
Headlamp (Driving Inboard)	11063919	55 watt
(Hi/Lo Beam Outboard)	11071361	55/60 watt
Front Turn Signal	9417866	32 C.P.
Parking (Front)	9421330	2 C.P.
Tail	142450	4-32 C.P.
Stop	9417866	32 C.P.
Rear Turn Signal and Back-up	9417866	32 C.P.
Headlamp Hi-Beam Indicator	11062449	2 C.P.
Instrument Illumination	9421330	2 C.P.
Dome Lamp — Centre (Normal)	9414045	12 C.P.
(Optional)	9422525	12 C.P.
— Reading Lamps	455136	15 C.P.
Foot Well	11015639	5 watt
Rear Quarter Corner	8096116910	5 watt
Rear Quarter Reading Lamp	11030669	10 watt
Turn Signal Tell-tale	11062449	2 C.P.
Licence Plate	SP1467	2 C.P.
Luggage Compartment	11030669	10 watt
Instrument Panel Compartment	11015639	5 watt
Brake Warning & Parking Brake Tell-tale	11062449	2 C.P.
Transmission Selector (Console)	11062449	2 C.P.
Ash Tray and Cigarette Lighter Illumination	11062449	2 C.P.
Heater and Air/cond. Control Illumination	9421330	2 C.P.
Cigarette Lighter/Dwell Control Illumination	11062449	2 C.P.
Clock (8 WS)	9421330	2 C.P.
Door Courtesy Light (8 WT)	9433040	
Heated Rear Window/Power Antenna Switches	11062449	2 C.P.
Low Coolant Warning/Mirror Control/Map Light	11062449	2 C.P.
Engine Compartment Lamp	11030669	10 watt
Trip Computer	11062449	2 C.P.
Light Switch Illumination	11062449	2 C.P.

Bulb Replacement

Headlights

Replacement of these units is recommended only by a GMH Dealer or a competent person, as the aim should be rechecked after replacement in case the setting has been disturbed.

Front Parking and Turn Signal Lights

These lamps are mounted in one combined lamp body and have only one lens. The top clear section of the lens is the parking lamp and the lower amber section is the turn signal lamp.

To gain access to the bulbs unscrew the two cross-head screws which secure the lens. Take off the lens and the bulb can then be removed.

To remove the parking light bulb, pull it straight out of the socket.

To remove the turn signal bulb, which is the normal bayonet type, use a twisting motion to disengaged the lugs and then pull it straight out. Care should be taken to make sure that the lens gasket is not dislodged from its groove in the light body during lens removal or replacement.

Rear Stop/Tail, Turn Signal and Back-up Lights

Access to the bulbs for these lamps is gained from inside the luggage compartment. Each bulb holder is removed using a twisting motion which unlocks it from the light body. The bulb can then be removed. The stop/tail lamp bulb has a bayonet cap with offset pins to ensure correct positioning of the filaments. The turn signal/back-up light bulb has an ordinary bayonet cap.

Rear Licence Plate Light

This light is located in the centre portion of the bumper bar above the licence plate. to replace the bulb, reach into the opening in bumper bar and deflect downward the rubber-mounted licence light bracket. The bulb, which is a normal bayonet type can then be removed by using a twisting motion to disengage the lugs and then pulling it straight out of its socket. The bracket will then swing back into the correct position.

Instrument Panel, Console Lights and Interior Lighting

Replacement of these bulbs is recommended only by a GMH Dealer or a competent person as all wiring and associated attachments are prone to damage if not serviced correctly.

Instrument Panel Compartment Bulb

The bulb is located directly behind the activating button which is at the top left hand corner of the compartment. Access to the bulb is gained through the square hole immediately adjacent to the button. The bulb, which is a normal bayonet type can then be removed by using a twisting motion to disengage the lugs and then pulling it straight out of its socket.

Interior Dome Light

To remove, gently squeeze together the long sides of the plastic lens (not the plastic surround) to gain access to the bulb. The bulb is of the festoon type and can be removed by pulling it straight out from its retaining clips.

Luggage Compartment Light

The bulb is mounted in a socket which is located at the top right hand side of the luggage compartment, adjacent to the steel cargo barrrier. The bulb, which is a normal bayonet type can then be removed by using a twisting motion to disengage the lugs and the pulling it straight out of its socket.

Section 6:

Appearance, Maintenance and Service

Paintwork

The paint on your Statesman is finished in acrylic lacquer and will stay bright and new-looking provided you wash it regularly, using approved products. Weekly washing is recommended if the vehicle is being used constantly or if it is not parked under cover.

Before you wash the paintwork, thoroughly wash in and around the front and rear windows and check that door drain holes, tailgate drain holes and rocker sill vents are clean. Hose off any heavy dirt on the glass, but leave final cleaning of the glass until last.

Washing tips

Use either cold or warm water — preferably running.

Use clean chamois cloths, sponges or rags (old, clean linen is better than new material for glass).

Don't wash your vehicle in bright sunlight — it will streak.

Grease and oil can be removed with a little kerosene or white spirits. Flush with water afterwards.

If petrol is spilled during refilling, flush with water immediately.

Be sure that your cleaner, polish or wax is suitable for acrylic finishes. AC Delco Wash & Wax from your GMH Dealer is highly recommended.

Insect spots can be removed with a mixture of 220 grams of baking soda in 2 litres of water. Flush clean afterwards. New tyre look can be restored with AC Delco Tyre Black from your GMH Dealer.

Tarnished chrome responds well to AC Delco Polishing Liquid.

CLEANING OF INTERIOR

Care and Cleaning of Upholstery

Dust and dirt particles which accumulate on the surface of the interior trim should be removed every few weeks — more often with constant hard driving. This can be done readily with a vacuum cleaner. Before attempting to remove spots and stains from an upholstery fabric, it is necessary to determine as accurately as possible:

1. The type of fabric.
2. The nature and age of the stain.
3. The effect of the stain removal agent upon the colour, structure and general appearance of the trim material.

It is essential that stains be removed from the trim material as soon as possible after they have been made. If they are allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult, if not impossible.

Cleaning Carpets

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is extremely soiled, thoroughly vacuum it to remove loose dirt, then using AC Delco Car Care Upholstery Cleaner, clean approximately one square foot at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet, use an air hose to fluff the carpet, pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

Cleaning P.V.C. Coated Fabrics

Vinyl (P.V.C.) coated fabrics are used for seating, headlining and auxiliary trimming. The grades used vary according to their function. P.V.C. fabrics are generally made with fabric bases upon which synthetic resins are applied. Care of P.V.C. fabrics is a relatively simple but important matter. The surface should be wiped over with a dry cloth during the regular cleaning of the vehicle. Should dirt accumulate and become embedded in the material pattern the following procedure is recommended.

1. Using luke warm water and soap, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to advantage to remove stubborn stains or dirt embedded in the grain of the material.
2. Repeat using only a damp cloth and no soap.
3. Wipe dry with a soft cloth.

The above cleaning instructions also apply to the rubber floor mats.

Cleaning Seat Belts

Cleaning of the seat belts can be carried out by using a mild non-abrasive soap and lukewarm water. After washing be sure to thoroughly sponge the washing solution out of the belts.

CAUTION: Do not bleach or dye belts since this may severely weaken them.

Cleaning Ash Trays

Insert Type

To remove, open the lid of the ash tray and use the lid to pull out the ash tray complete. The tray can then be emptied and cleaned. To replace, reverse the procedure.

Tilt-Open Type

To remove, open ash tray, depress the spring loading tab in centre and carefully withdraw. The tray can then be emptied and cleaned. To replace, reverse the procedure.

Cleaning Glass

Glass

The interior glass areas of the vehicle should be cleaned using a non-abrasive household detergent and clean, soft cloth.
Care must be taken when cleaning inside the rear windscreen so as not to damage the heating element.

CAUTION: Many cleaners may be toxic or flammable, or may cause damage to the interior. When cleaning the interior, do not use volatile cleaning solvents such as: acetone, lacquer thinners, enamel reducers, nail polish removers; or such cleaning materials as laundry soaps, bleaches or reducing agents. Never use carbon tetracholride, gasoline or naphtha for any cleaning purpose.

IMPORTANT: Be sure the vehicle is well ventilated while using any cleaning agents. Follow the manufacturer's recommendations when using such products.

CLEANING OF EXTERIOR

Preliminary Steps

CAUTION: Care should be used when moving the vehicle after washing, in case water has affected the brakes.

Frequent hosing and washing of the vehicle cannot be overstressed as the most effective precaution against corrosion. Other items requiring attention before washing the vehicle are as follows:—

1. Underbody Cleaning

The effects of salts and other corrosive materials from road surfaces can result in accelerated rusting and deterioration of underbody components such as brake and fuel lines, frame, underbody floor pan, exhaust system, brackets, parking brake cables. These corrosive effects, however, can be reduced by periodic hosing of the underbody with plain water whenever the vehicle is being washed. In geographic areas having a heavy concentration of corrosive materials it is recommended that the complete underbody be inspected and washed at least once each year, preferably after a winter's exposure. Particular attention should be given to cleaning out underbody members where dirt and other foreign materials may have collected.

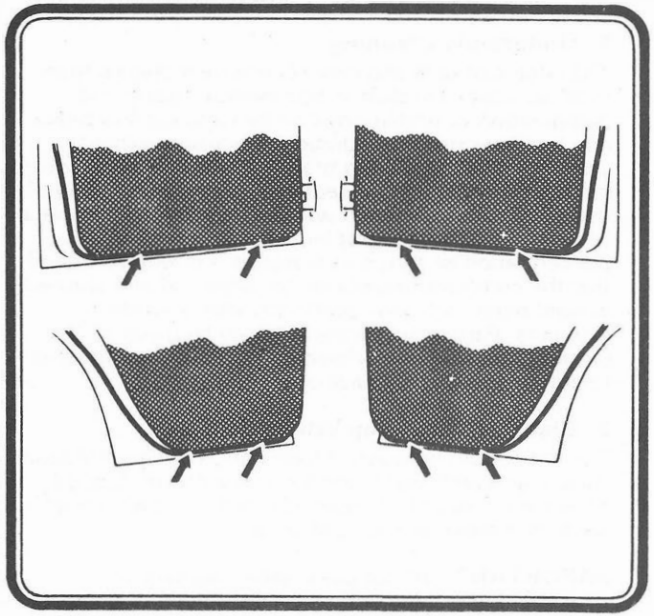
2. Cleaning Vinyl Top Where Fitted

The top should be washed frequently with neutral soap suds, luke-warm water and a brush with soft bristles. After the entire top has been cleaned, rinse with clear water to remove all traces of soap.

IMPORTANT: Do not use volatile cleaners or household bleaching agents on the vinyl top material.

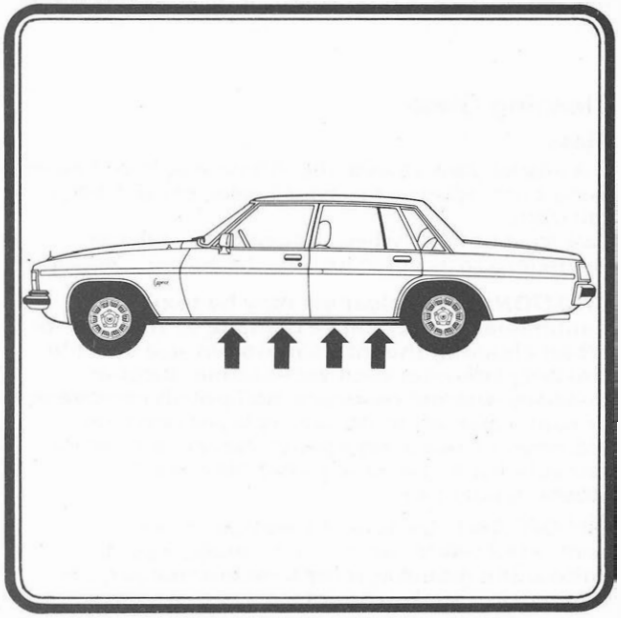
3. Door Drain Holes

It is important that the drain holes at the bottom of the door panels are checked to make sure that they are free of dirt and foreign matter, which could trap water inside the panels. Clogged drain holes can be cleaned with a small screwdriver and these drain holes are angled back towards the rear of the vehicle. (Refer illustration below.)



4. Rocker Sill Vents

In all models there are vents which should be regularly checked to see that they are clear of blockage, using a blunt ended instrument. These vents are formed as cut-outs in the sheet metal along the bottom edge of the rocker sill, being evenly placed between the front and rear wheel arches and face inward, towards the centre of the vehicle. (Refer illustration below.)



Glass

Special care should be taken to avoid scratching the glass when it is being cleaned. If it is cleaned at the same time as the rest of the vehicle, there is a possibility that particles of grit will cause fine scratches. An accumulation of these on the windshield can make night driving very unpleasant. Flush off any heavy mud deposits on the glass when washing the body, but leave the final cleaning and polishing until afterwards.
Each section of glass should then be washed in turn, making sure that the water, its container and the sponge are quite clean and free from grit. If the glass is very dirty, a little household ammonia mixed with warm water will help. Clean old linen cloth is better than new material for polishing glass.

Insect Spots

Insect spots on the paint finished parts of the vehicle can be easily washed off by using a solution containing 2 litres of water in which approx. 220 grams of baking soda (Bicarbonate of Soda) has been dissolved. Flush the washed parts with clean water. After washing and drying, park the vehicle in a shaded area.

Washing

The acrylic lacquer finish on your vehicle is superior to ordinary lacquers and will stay bright and new looking for years with little or no polishing, provided it is given a reasonable amount of regular washing to keep off road grime.

To preserve the original paint finish of the vehicle, it is essential that it is kept clean by frequent washing. Washing not only removes dirt and road grime that settles on the vehicle, but also dilutes acids which accompany such grime, in particular, salt from air or sea spray encountered in coastal areas which often become trapped in crevices. Tree sap, road tar, excretion from insects and industrial fall out often contain harmful chemicals and other foreign matter that may permanently damage the paint finish of the vehicle. these should be removed without delay, using an effective removal agent.

Regular Washing

If the vehicle is in continuous use, it should be washed at least once a week with either cold or warm water (preferably running water), using clean chamois leathers, sponges or rags free from dirt or grit likely to scratch the paint finish. It is good practice to first hose the vehicle to remove as much of the grit and grime as possible before swabbing the surface. Do not wash the vehicle under bright sunlight when high temperatures are being experienced, as this will resullt in a streaky, watermarked finish.

AC Delco Wash and Wax (Part No. M37226) loosens road grime to make washing easier and leaves paint shining clean.

NOTES:

1. Calcium chloride and other salts, road oil and tar, tree sap, chemicals from factory chimneys and other foreign matter may damage any known automobile finish if allowed to remain in contact with the paint film.
2. Some chemical cleaners used for removing road oils and tars from painted surfaces have been found to be detrimental to acrylic finishes. When purchasing a cleaner, polish or wax, ensure that it can be safely used on an acrylic finish.
3. Grease and oil, and even tar if it's fresh, can be removed from the finish with a little Kerosene or White Spirits. As a precaution against staining, wash and polish as soon as possible the area from which the foreign matter has been removed.

IMPORTANT: If petrol is spilt on the paint finish when refilling, owners are advised to ensure that it is flushed off with clean water immediately. The reason is that petrols currently in use have a tendency to stain or soften new paint finish during the weathering out period, particularly when the vehicle is exposed to high temperatures.

Paint Work Inspection

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust and thus affect paint finish. Any deep scratches, cracks or breakdown in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust "creep" will extend beyond the damaged area. This applies particularly in sub-tropical areas or coastal districts, where the moist or salt-laden atmosphere accelerates rusting if it is allowed to develop through neglect. The paint finish of the vehicle gives a very high degree of protection against the weather, but it should be realised that wear and deterioration occur when the vehicle is exposed to elements for prolonged periods.

The vehicle therefore should be garaged whenever possible.

Chromium Plated Parts

Generally, a rub with a clean soft cloth will be all that is necessary to remove dust from the chromium plated parts. However, if the chromium is covered with dead insects or mud, it should be washed with warm soapy water and then cleaned with AC Delco Polishing Liquid (Part Number M37221). This polish should also be used if the chromium shows signs of tarnishing. Do not use ordinary metal polishes as they may contain abrasives which would ruin the plating.

Polishing

Even though the acrylic lacquer finish on your vehicle is more durable than ordinary lacquers, under certain conditions you may wish to polish your vehicle to provide maximum protecton against road dirt and industrial fall out etc. Also, the application of a polish may be required to remove foreign matter which is not normally removed from vehicles by washing. Over a period of time, such foreign matter may build up on the paint surface to the detriment of its overall appearance.

Do not attempt to apply a polish without first washing to remove existing loose grit, surface dirt, dust or grease, etc.

Either AC Delco Polishing Liquid (Part No. M37221) or AC Delco Polishing Cream (Part No. M37220) will quickly and easily impart a deep, rich shine when used as directed on the container.

Tyres

Sponging with cold water is all that is necessary for normal cleaning of the tyres. Oil and grease can, and should, be removed with soap and water or detergent. For tar or other substances, a mild abrasive, such as mechanics' hand soap or kitchen cleaning powder, may be used if necessary. thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

New Tyre look can be restored by using Tyre Black.

GM Replacement Parts and Accessories

GM Parts & Accessories Division of General Motors-Holden's Ltd. is established to distribute GM Parts through Authorized GMH Dealers located throughout the Commonwealth from whom you can obtain new parts as required.

GM Parts are manufactured to the high standards of quality established for General Motors-Holden's vehicles — to the correct specifications and of the same materials as the original parts on your vehicle. They are, therefore, guaranteed, and it is definitely in your interest to specify them.

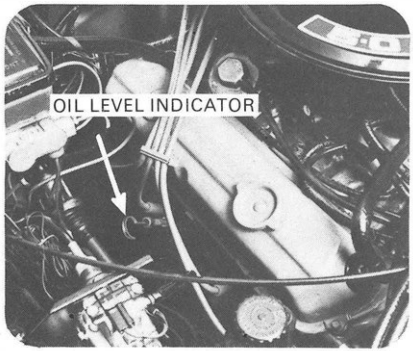
Engine Oil

CAUTION: As with any machinery, extreme care should be taken when carrying out any inspections or maintenance job. If you have any doubts about your own ability, please have the job done by a qualified mechanic.

Initial Oil Fill

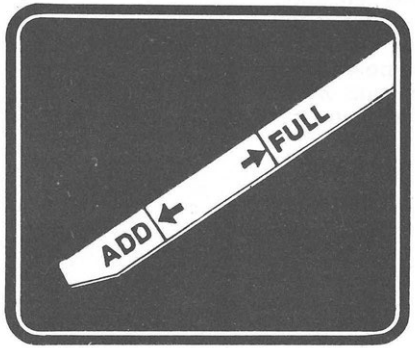
A high quality SE oil was installed in your engine at the factory. It is not necessary to change this factory-installed oil prior to the recommended normal change period. However, check the oil level more frequently during the running-in period since higher oil consumption is normal until the piston rings become seated.

NOTE: Non-detergent and other low quality oils are specifically not recommended. Only the use of SE engine oils and proper oil and filter change intervals assure you of continued proper lubrication of the engine.



Maintaining Oil Level

The oil level indicator is marked ADD and FULL. The oil level should be maintained between the two markings, neither going above the FULL marking nor under the ADD marking. Check the oil level frequently and add oil when necessary.



To check the oil level accurately, the vehicle must first be on level ground and the engine should be stopped for at least ten minutes. Checking the oil level too soon after stopping the engine will not allow sufficient time for oil, which has circulated to the upper parts of the engine, to drain back into the engine oil pan, and consequently, a false low reading will be obtained. Topped up under these conditions will result in the oil pan being over-filled.

Remove the indicator, wipe it clean with clean cloth or paper before reinserting it firmly. Pause for a second then withdraw the indicator to check the reading of the oil level.

The distance between the ADD and FULL marks represent approximately 1 litre on all engines. Oil level should be checked more often during the running-in period since somewhat higher oil consumption could be experienced until piston rings become seated.

Oil Consumption

In many cases, it is erroneously thought that engines should not use any noticeable amount of oil between oil changes. In actual fact every internal combustion engine should use a certain amount of oil to act as a lubricating and cooling agent especially during the running-in period.

There are several factors that contribute to oil consumption, apart from mechanical malfunction, that should be noted, and these are: the type of oil, the seating of piston rings, the oil level, and the conditions under which the vehicle is operated.

Running-in

The initial factory-fill oil should remain in the engine for the recommended period. (Refer this section.) Oil consumption may be high during the running-in period.

Lubrication

An engine is dependent on oil to lubricate the cylinder walls, pistons, rings and valve stems. A film of oil is left on the cylinder walls and burned on the next firing stroke while the film on the valve stems is drawn into the combustion chamber and burned. These quantities, while small, explain why an engine does use some oil.

Oil Level

Maintaining a proper oil level is also an important factor in controlling oil consumption. An overfull crankcase allows the reciprocating parts of an engine to splash oil on to the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chambers and burned.

Overfilling the crankcase can result if the oil level indicator markings are not understood. (Refer to previous notes.)

Dilution

Probably the most prevalent complaint of oil consumption comes from the motorist whose vehicle is driven at below normal operating temperatures for long periods of time. The oil becomes diluted by fuel and moisture which settle in the crankcase, raising the oil level and creating a false reading on the oil level indicator. For example, in a vehicle that has accumulated 1500 kilometres of city operation and has consumed a normal amount of oil, the level may not have dropped from the FULL mark, due to dilution. If this vehicle is then driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil is being lost.

Speed Consumption

Sustained high engine speeds will increase oil consumption because higher speeds increase engine temperatures which lower oil viscosity and allow more oil to reach the combustion chamber.

If it is considered that the above possibilities can be accounted for but excessive oil consumption appears to continue, then it is recommended that you discuss the situation with a GMH Dealer.

NOTE: Non-detergent and other low quality oils are specifically not recommended. The use of break-in oils, tune-up compounds, friction-reducing compounds and other supplemental additives are not recommended; their use will only increase operating costs.

REMINDER: The use of proper engine oils and observing oil change intervals are your best assurance of continued reliability and performance from the engine of your vehicle.

In the event of an operational problem, consult your GMH Dealer for advice before using supplemental additives.

Oil Filter Replacement

The full-flow oil filter, with non-return check-valve, filters all the engine oil delivered by the oil pump. For this reason the interval of filter change is very important.

The oil filter should be replaced every six months or 10,000 kilometres whichever occurs first, independent of oil change intervals.

Under prolonged dusty driving conditions it is recommended that the oil filter be replaced more often.

NOTE: After the oil filter has been replaced, additional oil must be added:—

8 cylinder Engines—Type PF10	0.9 litre
—Type X96	0.3 litre

Always use AC brand of oil filters, for replacement purposes.

Fuel Requirements

The vehicle is designed to operate on a good quality clean fuel of 97 octane rating. The use of a fuel which is too low in anti-knock property will result in "Detonation" (a metallic rapping noise generated during the combustion process). If "Detonation" persists, consult an authorized GMH Dealer. Continued operation of an engine which exhibits symptoms of "Detonation", may result in damage for which General Motors-Holden's is not responsible under the terms of the Warranty.

Oil Change Intervals

The amount of time between changes depends a lot on what you use the car for, and where it is driven.

The table indicates oil change intervals for cars used "normally".

If you usually drive on dusty roads; if you often take long trips; or — strangely enough — if you only use your car for to and from the office or the shops, you will need to change the oil more often. Say every month or every 5,000 kilometres.

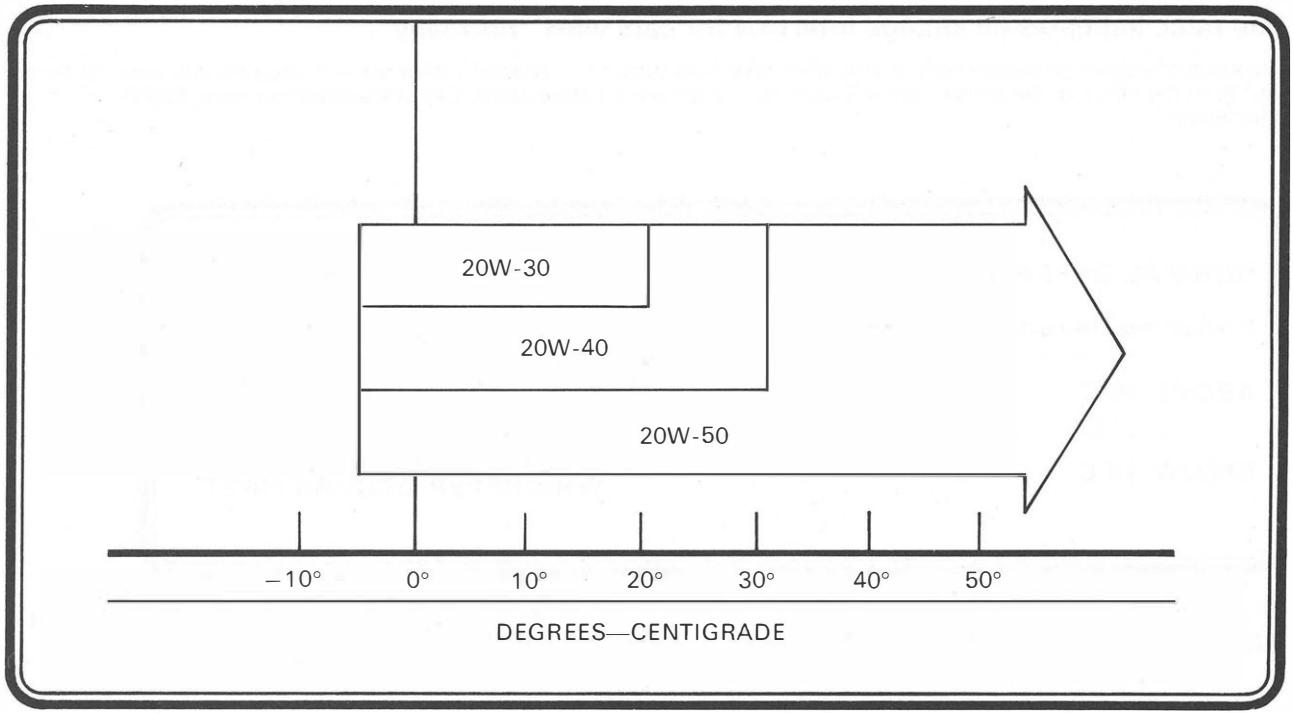
NORMAL OPERATING CONDITIONS

Prevailing Daytime Temperatures	Regular Oil Change Interval
ABOVE 10°C	EVERY 6 MONTH OR 10,000 KM — WHICHEVER OCCURS FIRST
BELOW 10°C	EVERY 1 MONTH OR 5000 KM — WHICHEVER OCCURS FIRST

IT IS RECOMMENDED THAT YOU SEE YOUR GMH DEALER FOR ADVICE ON THE FREQUENCY OF OIL AND FILTER CHANGES UNDER UNUSUAL DRIVING CONDITIONS.

Engine Oil Grades

The chart below is a guide to choosing a suitable oil.



Transmission Oils

Automatic Transmission

Use only DEXRON ® products. These are available from your GMH Dealer.

To check the fluid level:

First drive the car for several kilometres making frequent stops and starts. (A shopping trip would be ideal.)

Now pull up, put the car in PARK and leave the engine running while you check the dip stick. This is found under the bonnet near the drivers side rear of the engine compartment.

If the level is at or below the ADD mark, add fluid until the stick reads FULL — it will take about ·5 litre. Don't overfill.

Transmission fluid should be changed every two years or 40,000 km., or more often if you drive in the city in summer or use it to pull a caravan, or if you often leave it idling.

This interval should be halved for heavy usage.

Rear Axle Oil

This should be checked every six months or 10,000 km whichever comes first. If necessary, add oil to bring the level of the oil to the plug hole.

SERVICING

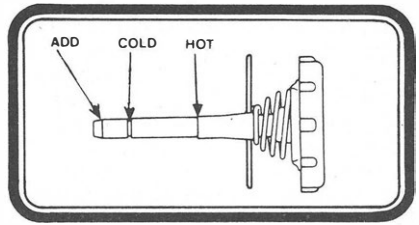
As all adjustments, cleaning and servicing of automatic transmissions requires specialized equipment and knowledge it is recommended that these operations be performed by an authorized GMH Dealer.

Power Steering

At each oil change period the fluid level in the pump reservoir should be checked using the fluid level indicator which is attached to the filler cap. This operation can be carried out when the fluid is either cold or hot.

NOTE: When checking the fluid level the engine must be stopped with the front wheels in the straight ahead position. If the reading is taken before vehicle is operated (i.e. when the fluid is cold) the fluid level should be at the COLD mark on the indicator. If the reading is taken after the vehicle has been operated for at least 10 to 15 minutes (i.e. when the fluid is hot) the fluid level should be at the HOT mark on the indicator.

After checking the fluid level and it is found to be at or below the ADD mark on the indicator use DEXRON II automatic transmission fluid to raise the level to the appropriate mark as described above.



Engine Cooling System

CAUTION: If your cooling system overheats, see "Engine Overheating" in Section 3. Continued operation of the engine even for a short time could result in a fire and the possibility of personal injury and/or severe vehicle damage.

Coolant Recovery System

Your car is fitted with a coolant recovery system. As the car is driven, the engine coolant is heated and expands. The radiator pressure cap senses this expansion and releases coolant out through the overflow hose into the coolant recovery reservoir. This reservoir is situated in the engine compartment behind the right hand headlamp. When the vehicle has stopped and the system cools down, coolant is drawn back into the radiator.

Radiator Pressure Cap

This cap is designed to allow the cooling system to operate at temperatures over 100°C without boiling. It does this by causing the system to operate under pressure which in turn raises the boiling point of the coolant. The pressure rating of the radiator cap is 105 kilopascals (15 psi) and should be checked occasionally by your dealer for correct operation. If a replacement cap is needed, be sure to use a cap specified for your model.

Thermostat

The engine coolant temperature is controlled by a thermostat. It stops coolant flow through the radiator until a preset temperature is reached. This thermostat is installed in the engine coolant outlet on the engine block. The same thermostat is used in both winter and summer. If your engine is overheating or running too cool then the thermostat should be checked for correct operation.

Corrosion Protection

To protect components of the cooling system from corrosion your new vehicle was filled with coolant containing corrosion inhibitor to GMH Specification HN1791. It is recommended that all future additions of coolant to the system should be made with a pre-mixed coolant comprising of 95% clean water and 5% (by volume) of corrosion inhibitor GM HN1791.

IMPORTANT: Corrosion Inhibitor performance cannot be guaranteed at concentrations other than those specified.

If you live in an area where water has a high level of mineral or chemical content use rainwater or distilled water. If you need to use bore water in an emergency, change it for the correct coolant as soon as possible.

Use of Anti-freeze Fluid

If your vehicle is to be parked overnight or operated for any length of time in regions where temperatures of 0°C or below are encountered the use of a suitable brand of anti-freeze fluid is essential.

The recommended anti-freeze fluid is permanent type (ethylene/glycol) to GM Specification 1825-M. In the event GM 1825-M is not available, anti-freeze to GM Specification 1899M can be used. Follow carefully the instructions on the packages when adding anti-freeze to the cooling system.

Anti-freeze also contains a corrosion inhibitor therefore it is not necessary to add a separate inhibitor.

CAUTION: Do not mix different types of anti-freeze or corrosion inhibitors as they may be incompatible. If a different type has been used in the cooling system flush the system with clean water before refilling with coolant containing the recommended corrosion inhibitor or anti-freeze fluid.

Cold Weather Draining

If your vehicles cooling system does not contain anti-freeze then the radiator and cylinder block must be drained before parking in freezing conditions. Failure to do so could result in bursting the radiator and/or cracking the cylinder block if the coolant freezes.

NOTE: Draining of the engine radiator and cylinder block will not drain the coolant out of the heater core therefore it may still be subject to freezing damage.

Checking Coolant Levels

The amount of coolant in the cooling system is to be checked as follows:

The level in the radiator should be checked at least weekly, preferably when the engine is cold. Follow the instructions under Coolant Replacement (on this page) for the correct way to remove the radiator cap and add coolant.

CAUTION: Do not remove the radiator cap when the engine and radiator are hot. Scalding fluid and steam can be blown out under pressure if the cap is taken off too soon.

The level of coolant in the recovery reservoir should be checked at regular intervals e.g. when refuelling at a service station.

When the engine is cold the coolant level should be at or just above the 'LOW' mark on the reservoir. When the engine is at normal operating temperature the level should be somewhere between half full and the 'FULL' mark on the reservoir. If required, top up the recovery reservoir with a mixture of water and GMH recommended corrosion inhibitor or anti-freeze fluid depending on which additive is being used in the cooling system.

If you regularly have to add coolant to either the radiator or the recovery reservoir you should see your GMH dealer for a cooling system check.

Coolant Replacement

To maintain the cooling system in good condition it is recommended that every 12 months or 20,000 km the coolant be replaced. This will ensure that the accumulation of scale and corrosion products is kept to a minimum thereby keeping the cooling system clean and operating efficiently.

Drain, flush and refill the cooling system as follows:—

1. When the engine is cool, remove the radiator cap as follows.
   - Turn the cap slowly to the left until it reaches a "stop". Do not press down while turning the cap.
   - Wait until any remaining pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it to the left until it can be removed.
2. To drain the coolant, locate the lower radiator hose and loosen the clamp fastening this hose to the radiator. Now disconnect this hose. Drainage may be speeded by removing the drain plugs in the cylinder block. These are hexagon head plugs located midway along

each side of cylinder block, above oil pan flange.

3. Now reconnect the lower radiator hose and install the cylinder block drain plugs if removed. Refill the system with clean water and run the engine for a short time to allow the coolant to circulate right through the system.
4. Drain the coolant again as per step 2. Reconnect the lower radiator hose and reinstall block drain plugs, if removed.
5. Refill the system with clean water and, corrosion inhibitor (meeting GMH Specification HN1791) or anti-freeze fluid (meeting GM Specification 1825-M). Follow the directions on the packages for correct concentrations of additives.

   Fill the radiator until coolant enters the recovery reservoir via the overflow outlet tube.
6. Run the engine at fast idle with the radiator cap removed until the upper radiator hose is hot. (This shows that the thermostat is open and coolant is flowing through the system.) With the engine idling, add coolant to the radiator as required until it reaches the level of the overflow tube. Install the radiator cap by pushing down and rotating to the right until the "stop" is reached.

IMPORTANT: When cleaning cooling system do not use chemicals to loosen scale unless the cooling system is afterwards thoroughly reverse flushed, otherwise loosened scale may clog the radiator water passages. For complete removal of loose sediment and sludge from the radiator and engine water jacket, pressure flushing with an air and water gun is recommended. As this method of flushing requires special equipment we suggest you have this work carried out by your GMH dealer.

CAUTION: If you run out of drinking water in a remote area do not drink the coolant from your vehicles cooling system. Remember that it contains additives which are poisonous.

Battery (12 Volt)

The battery is located in a metal cradle mounted on the left hand fender skirt in the engine compartment. The negative (−) terminal is "grounded" to the vehicle chassis. Never disconnect the battery or alternator when the engine is running.

Maintenance

Your vehicle is fitted with a battery which incorporates the latest technology. Consequently, it does not require periodic maintenance except to ensure that the terminals are clean and tight. Its top is permanently sealed (except for some small vent holes) and has no filler caps. You will never have to add water.

Charging

Whenever a battery charger is used, always connect positive (+) to positive (+) and negative (−) to negative (−). Detailed charging instructions are given on the side of your battery.

To meet your cars power requirements it is recommended that when you need to replace your battery, you choose an AC-DELCO battery with the same part number as shown on the original batteries label.

CAUTION: Follow the precautions listed in the "Jump Starting" Caution (see page 65) when working on or near a battery. Personal injury (particularly to eyes) or property damage may result from battery explosion, battery acid or electrical (short circuit) burns.

Engine Ventilation Filter

The engine ventilation filter is located in the air cleaner cover.

Every 12 months or 20,000 kilometres clean the engine ventilation intake filter with kerosene or a suitable solvent. Dry with compressed air.

EVAPORATIVE CONTROL SYSTEM

Every 24 months or 40,000 kilometres check all fuel and vapour lines and hoses for proper connections and correct routing as well as condition. Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter in lower section of canister.

WINDSHIELD NOTES

Windshield Cleanliness

It is important, at all times, that the windshield surface be maintained in a clean condition so that the wiper blades may be as effective as possible in wiping clean the surface.

Use of the windshield washer and Optikleen washer solvent will assist in removing dirt and dust particularly when driving at a time when no rain is falling; however, every opportunity should be taken to wipe or wash the windshield by hand (most Service Stations have such a service today as a courtesy item).

Abrasive materials must never be used to remove a build-up of road scum, etc., as a scratched windshield will cause difficulty in achieving proper vision, particularly in night driving. Therefore, after the windshield has been cleaned with a wet sponge etc., it should be wiped dry with a soft, lint free cloth or even a ball of newspaper.

WIPER WASHER

Wiper Blades — Cleaning

Much of the oil road scum thrown up onto the windshield glass, causing smearing when the wiper is switched on, transfers onto the wiper blade. Many owners, whilst they methodically clean the windshield glass, omit to clean the wiper blades and consequently smearing of the glass re-appears immediately the wiper blades are set in motion. The blades can be cleaned by simply lifting them off the windshield glass and then using warm water and a recognised washing fluid. If so desired, the wiper blade can be removed from the arm for cleaning purposes by simply disengaging it from the arm in accordance with the following instructions:—

1. Lift up tab at the end of the arm and remove blade sideways.
2. To replace, slide the blade pin into the hole in the arm clip, noting an audible click.

Washer Reservoir

A plastic reservoir containing liquid for the windshield washer is mounted in the engine compartment. It is suggested that when checking the radiator coolant level, the washer reservoir be checked also. For a crystal clear view Optikleen Washer Solvent (Part Number M37068) can be used by adding from the graduated container, the recommended proportion.

CAUTION: Do not operate the wiper blades by hand as this may damage the wiper drive mechanism.

In dry conditions, if the wiper blades are used to clean dust and dirt from the windshield always use the washer system to wet the windshield. Ensure that the windshield washer reservoir is checked regularly all the year round.

Should the wiper blades be frozen to the windshield, it is imperative that they be lifted off and freed by hand before switching on the windshield wiper system.

Lubricants and Filters

Engine Oil
Use oil to HN1455 specifications. (Refer page 106 for grades and application.)

Power Steering Fluid
DEXRON* Automatic Transmission Fluid, GM9985286

Automatic Transmission Fluid
*DEXRON automatic transmission fluid only, identified also by Part No. 9985286 should be used for topping up or service refills.
*DEXRON is a registered trademark of General Motors.

Rear Axle Oil
Use Multipurpose Hypoid gear oil in this order of preference, HN 1386 or HN 1187 or HN 1181. Limited Slip Differential — where fitted use oil to GM HN1561 specification only.

Front Suspension and Steering Ball Joints
Use a Lithium grease with 10% Molybdenum Disulphide, HN 1271.

Front Wheel Bearings
A non-melting high temperature grease, HN 1227.

Brake Fluid
Fluid to HN1796 specification.

Control Systems
Brake Pedal Pivots, Transmission Control Linkage, Accelerator Pivots, Parking Brake System, Pivot and Guides. Grease to HN 1225 (LG-2) specification.

Body

Normal use of a vehicle causes metal-to-metal movement at certain points in the body. Noise, excessive wear and improper operation at these points will result when a protective film of lubricant is not provided. Servicing and lubrication should be an integral part of the lubrication service and should be checked out as required every 6 months or 10,000 kilometres.

Powdered Graphite
(Apply through key aperture)

Door Lock Cylinder
Instrument Panel Compartment Lock Cylinder
Rear Compartment Lid Lock Cylinder

Non-Staining Grease or Zinc Oxide Grease
(Use sparingly on parts likely to be contacted by clothing)

Engine Hood Catch and Lock
Rear Compartment Hinges
Engine Hood and Door Hinges

Solidoil
(Use sparingly on working surfaces)

Door Lock Fork
Door Lock Striker Bolt

IMPORTANT: Remove all lubricants that may have dropped or spread onto the external paint finish.

Tyres

On the right hand front door pillar you will find a chart showing correct tyre inflation pressures for your vehicle under different operating conditions.

Always check tyre pressure when the tyres are cold, and always use a tyre pressure gauge. Your eye can deceive.

Tyre Pressure Recommendations

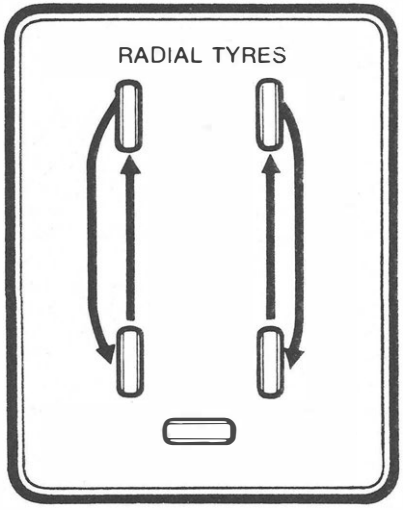
1. Tyre pressures should be checked when the tyres are cold (when the vehicle has been standing for 3 hours or more, or driven less than 2 kilometres).
2. Tyre inflation pressure may increase as much as 30 kPa (4 psi) when hot, (after the vehicle has been driven 15 kilometres or at speeds of more than 95 km/h. DO NOT reduce pressures to compensate for this build up. As a guide for checking warm/hot tyres under all conditions, allow pressure to read 30 kPa above that recommended.
3. It is recommended that the pressures are checked at least weekly. For constant long distance or rough road travelling daily checking is recommended. To maximise the protection of tyres on vehicles operating for prolonged times over rough roads i.e. particularly in outback conditions, it is recommended that the cold tyre inflation pressure recommended for high speed operation at maximum load condition as shown on the tyre placard is used.
4. Do not forget the spare tyre: It is advisable to maintain the spare at the **maximum recommended tyre inflation pressure** listed on the placard.

Tyre Rotation

If no abnormal or uneven wear is evident, if you have not experienced any vibration, tyres need not be rotated.

Front tyres are more prone to wear on the shoulder while rear tyres wear more on the crown. Wear can be evened out by rotating the tyres.

Check them at the 5,000 km inspection, then at intervals of 10,000 km. Your GMH dealer will be able to diagnose any unusual signs of wear and can also balance the wheels and tyres for you.



Tyre Speeds

The speed ratings of a tyre are indicated by the following letters:

On bias-ply (conventional) tyres —
W — 135 km/h
— — 150 km/h
L — 160 km/h
S — 175 km/h
H — 200 km/h

On radial-ply tyres —
W — 135 km/h
— — 170 km/h
S — 180 km/h
H — 210 km/h

Tyre Replacement

Use only tyres recommended on the chart on the right hand front door pillar.

Don't mix cross ply and radial ply tyres on your vehicle and don't mix radial ply tyres with other types of tyres. New tyres should be fitted in pairs to the front but if replacing only one tyre, pair it with the least worn of the old tyres.

And if you replace all tyres with tyres of a different size, your speedometer readings may be affected. Have the car checked afterwards.

Tyres with a higher speed rating and/or with a maximum load rating in excess of that listed on the tyre placard for tyre size listed are also acceptable as replacements provided they are fitted to a suitable rim size.

For example —

LISTED TYRE SIZE DESIGNATION	LISTED MAXIMUM LOAD RATING	OTHERS ACCEPTABLE
FR 78 S14	680 kg	Listed Load Rating Greater than 680 kg
ER 60 H15	680 kg	Listed Load Rating Greater than 680 kg

Uneven or abnormal tyre wear is usually the result of incorrect inflation pressure, improper wheel alignment, wheels being out of balance, or poor driving habits. The original equipment tyres incorporate built-in tread wear bars which act as indicators to assist in determining when the tyres have worn to the point of needing immediate replacement.

When the wear bars appear, tyre replacement should not be delayed, in the interests of safety.

Radial Ply Tyres

Radial Ply Tyres have radial marked on them. Because of the stiffening belt under the tread the ride characteristics of Radial Ply Tyres may be somewhat different from that of conventional tyres.

The under-inflated appearance of the radial tyre is normal.

Tyres used at maximum speeds must be in good condition and not retreaded or regrooved. Refer to the chart inside your glove box for appropriate tyre pressures.

When driving in very rough country, radials should be inflated to the recommended high speed operation pressure, being 28 kPa (4 psi) above the maximum load condition setting shown on the tyre placard.

Heavy Treads

Caution must be exercised when using tyres with heavy treads, including tyres designed to gain traction in bad weather conditions. At sustained high speeds, this type of tyre will run at higher temperatures than standard tyres and consequently should only be operated within the limits recommended by the manufacturer.

Any doubts concerning the fitness of the tyres on your vehicle for the purpose you require should be referred to your GMH Dealer, who will be pleased to advise.

Tyres and Fast Motoring

It should be noted that all the maximum speed recommendations require the following:

The tyres must be in

1. good condition, the walls and treads being free of cuts and abrasions,
2. treads must not be excessively worn, tread pattern should still be visible over the entire tread surface,
3. the tyres should not be retreaded or regrooved,
4. the tyre pressures should be as shown on the Tyre Placard for loading and speed operation.

SUGGESTED GUIDE FOR CHECKING HOT TYRES —

As a guide for checking warm/hot tyre "under all conditions", allow pressure to read 30 kPa above that recommended for cold tyre.

Tyre Traction

CAUTION: A decrease in driving, cornering, and braking traction occurs when water, snow, ice, gravel, or other material is on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydro-planing, may cause partial or complete loss of traction, which adversely affects vehicle control and stopping ability. To reduce the possibility of traction loss, the following precautions should be observed:

1. Reduce speed levels during rainstorms or when roads are slushy and if the road has standing water or puddles.
2. Replace tyres when tread wear indicators are visible.
3. Check that tyres are properly inflated for speed range and vehicle loading.

Tyre Damage and Repair

Tyres with cuts, splits or cracks deep enough to expose the fabric, should be replaced. Bulges also indicate internal damage, and these tyres should also be replaced. Tyres with doubtful damage should be removed from the wheel and examined by a competent person.

If a pressure loss occurs while driving, do not attempt to drive on the deflated tyre more than is necessary to stop safely. Driving even a short distance on a deflated tyre can damage it beyond repair.

When puncturing objects are removed, repairs will have to be made according to the recommendations of the tyre manufacturer.

It should always be remembered that a tyre which has been repaired will not be able to be operated safely at the rated maximum speed and due care should be taken.

Replacement Wheels

When replacing wheels for any reason, care should be taken to ensure that the wheels are equivalent to those removed in diameter, rim width and offset.

Air Cleaner

The air cleaner element should be removed and cleaned every 6 months or 10,000 km and replaced every 24 months or 40,000 km. If the vehicle is operating in extremely dusty conditions for any length of time the air cleaner should be checked an cleaned more frequently.

Ensure that the thermal vacuum signal hose is connected to the carburettor and air cleaner when re-installing the air cleaner.

CAUTION: Do not remove the engine air cleaner unless temporary removal is necessary during repair or maintenance of the vehicle. When the air cleaner is removed backfiring can cause fire in the engine compartment.

Brake Master Cylinder

Every 6 months or 10,000 kilometres check the fluid level in the master cylinder. The fluid level visible through the reservoir should be maintained between the MIN and MAX level markings with brake fluid to GMH specification HN1796. If the fluid is between these levels do not remove master cylinder cap. If the master cylinder requires constant topping up it could indicate that a malfunction exists in which case it should be immediately brought to the attention of your servicing GMH Dealer.

Service and Maintenance

Owner Maintenance and Responsibility

Owners must assume responsibility for checking and maintaining the following items **weekly** between services.

- Engine oil level.
- Auto. trans. fluid level.
- Cooling system level (radiator).
- Brake Master Cylinder fluid level.
- Windshield washer reservoir level.
- Battery terminals (for corrosion).
- Tyre pressures.
- Condition of tyres.

It is your responsibility to have your car serviced regularly and to ensure that all points listed for that particular service are attended to. Not to do so may affect your warranty.

CAUTION: As with any machinery, extreme care should be taken when carrying out any inspection or maintenance work. If you have any doubts about your own ability, please have the job done by a qualified mechanic.

Service Dealer's Responsibility

Your Service Dealer must attend to all items listed for any particular service and must see that the validation coupon is signed.

Service coupons are in this book in the following section.

Owner's responsibility

Normal maintenance services as listed in this servicing schedule contained on pages 122 to 124 in this handbook, and replacement of service items, are the responsibility of the owner and as such are NOT considered, under the provisions of the new vehicle warranty, to be rectification of defects in material and workmanship.

Items such as wheel alignment, brake adjustment as a result of lining wear, etc., which may require servicing due to fair wear and tear, will be carried out at the owner's cost.

We strongly recommend that you read the warranty certificate at the front of the handbook, so that you are conversant with your entitlements.

Water and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, greatly contribute to the need for constant maintenance services to promote efficient vehicle operation.

Operating Conditions

Normal Conditions

The maintenance instructions contained in this publication are based on the assumption that the vehicle will be used as designed and is operated in accordance with the instruction provided in the owner manual.

Extreme Conditions

Extreme operating can be described as that where a vehicle operates continually for a period of 1 month or 1500 kilometres under the following conditions:

Condition

1 Dust, dirt, loose road metal.
2 Muddy and wet areas.
3 Cold weather — below 10°C.
4 Stop-start, as experienced in inner city driving.
5 Caravan or Trailer hauling.

In such circumstances it is suggested that the following items be serviced more frequently than at the periods recommended in the Maintenance Plan.

Conditions	Items
1, 3 & 4	Engine oil.
1	Engine oil filter.
1 & 2	Front suspension, steering, and parking brake system.
5	Automatic transmission fluid
1	Engine air cleaner element.
2	Front wheel bearings.
2	Drive line joints and rear axle.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of your GMH Dealer.

Maintenance

Once the first service has been completed, dependability and performance are influenced by the degree of maintenance the vehicle receives.

Safety, economy and dependability cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians. It is preferable to receive these services from the Dealer from whom the vehicle was purchased. However, Maintenance will be attended to by any Authorised GMH Dealer on presentation of the Owner Handbook, no matter where you may be situated.

What The Owner Should Do

When service, according to the time or distance interval, is due, the owner should present this Owner Handbook to a GMH Dealer as an authority to have the items listed attended to. After this work is completed, the owner should see that the Validation Record is stamped and signed by the dealer. The Handbook with the Validations completed is evidence that a vehicle has been adequately maintained. This is important as it will not only assist in the determination of Warranty Claims, but enhance the value of the vehicle whenever resale is contemplated.

What The Servicing Dealer Has To Do

Attend to all items listed for the particular service. When this has been done, it is most important that the Owner Handbook Validation be signed by the dealer or his representative.

All operations listed on the Service Coupons should be carried out following the procedures set out in the appropriate service manual.

The one month—1500 kilometre service will be performed without cost for labour by the Selling Dealer.

This service may be carried out by another GMH Dealer provided you have a letter of Introduction from the Selling Dealer. Your Dealer will supply the necessary letter of Introduction upon request.

Maintenance Plan

The 3-Step Service Concept

The fundamental points are:

1. A basic service interval period of 6 months or 10,000 kilometres whichever occurs first.
2. A "step" principle of 3 correlated services.
3. The frequency of these services is:

   "A" service items — Serviced every 6 months or 10,000 km
   "B" service items — Serviced every 12 months or 20,000 km
   "C" service items — Serviced every 24 months or 40,000 km

Service Designation	—A—	—B—	—C—
Items	Group I	Groups I & II	Groups I, II & III

Up to the 3rd step in the items programmed in the earlier steps are included.

The total time/distance range of this Maintenance Schedule is 66 months or 110,000 kilometres.

Total Programme

Pre-Delivery Service

1 Month — 1500 Kilometres Inspection and Adjustment

Then as required: (Months — km whichever occurs first)

A @ 6-10,000

B @ 12-20,000

A @ 18-30,000

C @ 24-40,000

A @ 30-50,000

B @ 36-60,000

A @ 42-70,000

C @ 48-80,000

A @ 54-90,000

B @ 60-100,000

A @ 66-110,000

Maintenance Plan

	GROUP I UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
	Wipe inside of distributor cap.
	Check operation of early fuel evaporation (EFE) system. Exhaust heat manifold valve should be checked for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	First 'A' Service Only. Check torque of carburettor mounting bolts. Check operation of EGR valve, where fitted.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.
	First 'A' Service Only. Air Conditioning Only—
	Check and if necessary adjust compressor drive belt using gauge.
	Check compressor mounting bolts for tightness Inspect refrigerant hose connections for evidence of leaks, correct if necessary. Check refrigerant charge at sight glass if so equipped or use 'Quick Check' method if system has no sight glass. Check that blower operates over the range of speed settings. Check operation of auxiliary cooling fan.
*	All 'A' Services after the first.* Check refrigerant charge at sight glass if so equipped, or use quick check method if system has no sight glass.

	GROUP I UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints.
	Inspect steering joints.
	Check front suspension struts for leaks or damage.
	Lubricate transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

	GROUP I INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

P.T.O.

Maintenance Plan

	GROUP I EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts or plates, hood lock and catch as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern. Check operation of cruise control (where fitted).
	GROUP II UNDER HOOD OPERATIONS
	Lubricate distributor. Check condition of cap and rotor. Check TVRS cables for resistance. Replace spark plugs. Check ignition timing.
	EGR System Only — Clean valve and manifold opening.
	Auto Choke. Check and adjust if necessary settings. Check Ignition timing, engine idle speed and fast idle speed on choke cam, adjust if necessary.
	Serviceable PCV Valves — Dismantle, clean and re-assemble. Disposable PCV Valves Test and replace if necessary.
	Clean PCV intake filter located in air cleaner cover.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor.
*	Air Conditioning Only — Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.
	GROUP II UNDER VEHICLE OPERATIONS
	Inspect front wheel bearings and check adjustment. Repack only if necessary.
	Check steering gear for leaks or free play.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.
	GROUP III UNDER HOOD OPERATIONS
	Replace air cleaner element if not yet changed in previous 24/40 period.
	Replace PCV intake filter.
	Evaporative control system. Check all fuel and vapour lines and hoses for proper connections and correct routing as well as condition. Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter.
	GROUP III UNDER VEHICLE OPERATIONS
	Repack front wheel bearings.
	Inspect steering gear, linkage and dust covers for wear and security. Notify owner of any deficiencies for immediate rectification.
	Auto Transmission — Drain and refill fluid. Adjust band and replace filter.
*	Rear Disc Brake Only — Inspect parking brake linings and drums for wear.
	Check Brake Hydraulic System for correct level. Remove Master Cylinder lid and add fluid if necessary.

*Additional Service—refer page 151.

N.B. It should be understood that whenever a B or C service is being carried out, some items on an earlier operation, may be superseded or modified by a later operation.

New Vehicle Preparation Validation

Your new vehicle has been inspected and prepared for delivery by your Dealer, in accordance with the manufacturer's New Vehicle Pre-Delivery Procedures.

Service Manager's Signature.....

Date.....P.T.O.

Pre-Delivery Operations

Check, and adjust if necessary, the following items:

UNDER HOOD OPERATIONS
Oil levels of engine, auto trans, brake master cylinders, power steering reservoir (if fitted).
Hose connections, fill radiator and windshield washer reservoir. Ensure corrosion inhibitor is present in radiator.
Air filter element.
Air Conditioning — Check and if necessary adjust compressor drive belt using gauge.
Check compressor mounting bolts for tightness. Inspect refrigerant hose connections for evidence of leaks, correct if necessary. Check refrigerant charge at sight glass if so equipped or use 'Quick Check' method if system has no sight glass. Check that blower operates on each speed setting. Check operation of auxiliary cooling fan.

UNDER VEHICLE OPERATIONS
Oil, fuel, water and exhaust leaks.
Check operation of steering gear from lock to lock, if excessive free travel evident, adjust steering.
Oil level in rear axle.
Brake line connections — check hoses for correct clearance.
Brakes — foot and park.
Inspect tyres and inflate to recommended pressures. Check toe-in.
Tighten wheel nuts to specified torque.

INTERIOR OF VEHICLE
Operation of all warning indicators, ignition steering lock, brake and park brake lights and interior electrical system items and controls.
Neutral safety switch and transmission parking pawl. (Auto transmission.)
Heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
Operation of all lights, including turn signals and hazard warning. C/A headlamp aim.
Inspect body trim and instrument panel; touch-up paint as necessary.
Fit of floor mats and completely clean the interior of the vehicle.

EXTERIOR OF VEHICLE
Wash vehicle, check paint, brush touch-up and minor repairs as necessary and polish.

ROAD TEST
Operation of seat belt emergency locking retractors.
Road test for engine, braking, and steering performance, operation of Air Conditioning (where fitted), rattles and squeaks, and correct if necessary.
Steering wheel spoke position.
Automatic Transmission — check shift pattern.
Clean steering wheel and control levers.
Check Tool and Jack storage.

Delivery Certificate

The dealer has completed the vehicle identification certificate, and has explained to the purchaser the terms and conditions of the General Motors-Holden's Sales Pty. Ltd., new vehicle warranty and notices and the contents of the owner's handbook. The dealer has informed the purchaser of his responsibility in respect of vehicle maintenance.

The dealer has demonstrated to the purchaser the operation of the vehicle and of all options and accessories.

The purchaser has been informed in writing of the fitting of any and all equipment or accessories not marketed by GMH or an affiliated company, and of any alterations or modifications which have been made to the vehicle and the effect on the GMH sales new vehicle warranty of such fitting, alteration or modification.

The purchaser has inspected the vehicle and acknowledges its delivery in accordance with this delivery procedure.

Purchaser's Signature ..... Date .....

Delivered by: Signature ..... Date .....

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

To ensure continued interest in your vehicle, GMH requests that subsequent owners (not original purchaser) fill in and mail one of the attached.

Subsequent Owner Vehicle Identification Certificate

Owner's Name Mr. Mrs. Miss .....

Address .....

Town ..... Phone .....

State & Postcode .....

Reg. No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location)

Subsequent Owner Vehicle Identification Certificate

Owner's Name Mr. Mrs. Miss .....

Address .....

Town ..... Phone .....

State & Postcode .....

Reg. No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location)

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors—Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria. 3001.

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors—Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria. 3001.

1 Month — 1500 Kilometre Inspection & Adjustment

This coupon should not be removed until the vehicle is presented for service.

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

Selling Dealer's Stamp & Signature .....

Date of Acquisition .....

This vehicle has been thoroughly checked in accordance with the schedule on the reverse side of this coupon.

Servicing Dealer .....

Town ..... State .....

Owner's Signature .....

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1 MONTH — 1000 KILOMETRE INSPECTION AND ADJUSTMENT

This vehicle has been thoroughly checked in accordance with the **1** month — **1,500** kilometre inspection and adjustment.

Dealer .....

Service Manager's Signature .....

Date ..... Odometer Reading .....

1 Month — 1500 Kilometre Inspection and Adjustment

UNDER HOOD OPERATIONS
Check engine oil level.
Check all fluid levels accessible in engine compartment.
Check air cleaner element for restriction under extreme dusty conditions.
Check all hose clips in engine compartment. (Use torque wrench where applicable.)
Check ignition timing and engine idle speed and fast idle speed on choke cam. Adjust if necessary.
Check operation of exhaust heat manifold valve for free operation.
Check operation of early fuel evaporation (E.F.E.) System for correct operation.
Check condition and tension of all engine drive belts — using tension gauge
Check and adjust hood lock and safety catch and lubricate.

UNDER VEHICLE OPERATIONS
Lubricate front suspension, control arm ball joints.
Check Rear Axle oil level.
Inspect all brake line connections and hoses for leakage and clearance.
Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
Check steering connections, control arm pivot bolts, tension rod and stabilizer bar attaching nuts.
Check torque of Rear Suspension Links attaching bolts.

INTERIOR VEHICLE OPERATIONS
Check operation of instruments, lights, hazard warning, turn signals, horn, windshield wipers and washers, seat belts, seat adjustment mechanisms and mirrors.

EXTERIOR VEHICLE OPERATIONS
Check headlamp aim. Adjust if necessary.
Check door and boot, lock operation, striker bolts, handles, etc. and lubricate.
Check hazard warning and heated rear window.

ROAD TEST PROGRAMME
All rattles, squeaks, vibrations and noises should be checked and rectified.
Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern. Check operation of cruise control (where fitted)

This Inspection and Adjustment will be carried out without charge to the owner except for any lubricants used. The Designated Servicing Programme is not to be exceeded without the Owner's prior agreement to additional servicing charges.

6 Months or 10,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

6 Months — 10,000 Kilometre Service

	GROUP I UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
	Wipe inside of distributor cap.
	Check operation of early fuel evaporation (EFE) system.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Check torque of carburettor mounting bolts. Check operation of EGR valve, where fitted.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.
	Air Conditioning check and if necessary adjust compressor drive belt using gauge.
	Check compressor mounting bolts for tightness. Inspect refrigerant hose connections for evidence of leaks, correct if necessary. Check refrigerant charge at sight glass if so equipped or use 'Quick Check' method if system has no sight glass. Check that blower operates on each speed setting. Check operation of auxiliary cooling fan.

	GROUP I UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints.
	Inspect steering joints.
	Check front suspension struts for leaks or damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

P.T.O.

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern. Check operation of cruise control (where fitted).

12 Months or 20,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

B SERVICE

12 Months — 20,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Lubricate distributer. Check condition of cap and rotor. Wipe inside of distributor cap. Check TVRS cables for resistance. Replace spark plugs.
	EGR System Only — Clean valve and manifold opening.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Clean PCV intake filter located in air cleaner cover.
	Auto Choke — Check and adjust if necessary settings. Check choke for free operation.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Servicable PCV Valves — Dismantle, clean and reassemble. Disposable PCV Valves — Test and replace if necessary.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor. Clean radiator core — check for blockages.
	Check operation of E.F.E. system.
	Air Conditioning Only — Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks or damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.
	Inspect front wheel bearings and check adjustment. Repack only if necessary.
	Check steering gear for leaks or free play.

Service

P.T.O.

INTERIOR VEHICLE OPERATIONS	
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

EXTERIOR VEHICLE OPERATIONS	
	Lubricate door handle pivots, door hinges, striker bolts, hoods lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

Additional Service—refer page 151.

18 Months or 30,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

18 Months — 30,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
	Wipe inside of distributor cap.
	Check operation of exhaust heat manifold valve for free operation. Early Fuel Evaporation (EFE) system.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.
*	Air Conditioning Only — Check refrigerant charge at sight glass if so equipped, or use quick check method if system has no sight glass.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks or damage.
	Lubricate, transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

P.T.O.

A Service

INTERIOR VEHICLE OPERATIONS	
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

EXTERIOR VEHICLE OPERATIONS	
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

*Additional Service—refer page 151.

SERVICE C

24 Months or 40,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

24 Months — 40,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Lubricate distributor. Check condition of cap and rotor. Wipe inside of distributor cap. Check TVRS cables for resistance. Replace spark plugs and distributor points.
	EGR System Only — Clean valve and manifold opening.
	Check operation of exhaust heat manifold valve for free operation.
	Replace air cleaner element if not yet changed in previous 24/40 period.
	Replace PCV intake filter located in air cleaner cover.
	Auto Choke — Check and adjust if necessary settings. Check choke for free operation.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Serviceable PCV Valves — Dismantle, clean and re-assemble. Disposable PCV Valves — Test and replace if necessary.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor. Clean radiator core — check for blockages.
	Air Conditioning Only — Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.
	Evaporative control system. Check all fuel and vapour lines and hoses for proper connections and correct routing as well as condition. Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Inspect steering gear, linkage and dust covers for wear and security. Notify owner of any deficiences for immediate recti-
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.

Service

	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.
	Drain, flush and refill with recommended new brake fluid from a sealed container.
*	Rear Disc Brake Only — Inspect parking brake linings and drums for wear.
	Repack front wheel bearings.
	Check steering gear for leaks or free play.
*	Auto Transmission — Drain and refill fluid. Replace filter.

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.
	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

**Additional Service—refer page 151.*

30 Months or 50,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

30 Months — 50,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Wipe inside of distributor cap.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks or damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

P.T.O.

A Service

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

*Additional Service—refer page 151.

B SERVICE

36 Months or 60,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

36 Months — 60,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Lubricate distributor. Check condition of cap and rotor. Wipe inside of distributor cap. Check TVRS cables for resistance. Replace spark plugs.
	EGR System Only— Clean valve and manifold opening.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Clean PCV intake filter located in air cleaner cover.
*	Auto Choke — Check and adjust if necessary settings. Check choke for free operation.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Servicable PCV Valves — Dismantle, clean and re-assemble. Disposable PCV Valves — Test and replace if necessary.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor. Clean radiator core — check for blockages.
*	Air Conditioning Only— Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Inspect steering gear, linkage and dust covers for wear and security. Notify owner of any deficiencies, including loss of steering preload, for immediate rectification.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.
	Inspect front wheel bearings and check adjustment. Repack only if necessary.
	Check steering gear for leaks or free play.

P.T.O.

INTERIOR VEHICLE OPERATIONS	
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and rectractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

EXTERIOR VEHICLE OPERATIONS	
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

*Additional Service—refer page 151.

42 Months or 70,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

42 Months — 70,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 engines — Check operation of vapour separator where fitted.
	Wipe inside of distributor cap.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Check torque of carburettor mounting bolts. Check operation of EGR valve, where fitted.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

P.T.O.

A Service

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

Additional Service—refer page 151.

48 Months or 80,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

C SERVICE

48 Months — 80,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission system pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Lubricate distributor. Check condition of cap and rotor. Wipe inside of distributor cap. Check TVRS cables for resistance. Replace spark plugs.
	EGR System Only — Clean valve and manifold opening.
	Check operation of exhaust heat manifold valve for free operation.
	Replace air cleaner element if not yet changed in previous 24/40 period.
*	Replace PCV intake filter located in air cleaner cover.
	Auto Choke — Check and adjust if necessary settings. Check choke for free operation.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Servicable PCV Valves — Dismantle, clean and re-assemble. Disposable PCV Valves — Test and replace if necessary.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor. Clean radiator core — check for blockages.
	Air Conditioning Only — Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.
	Evaporative control system. Check all fuel and vapour lines and hoses for proper connections and correct routing as well as condition. Remove cannister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level and inspect CV joint for grease loss or damage.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Inspect steering gear, linkage and dust covers for wear and security. Notify owner of any deficiencies, including loss of steering preload, for immediate rectification.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.

P.T.O.

	Inspect tyres for irregular wear of damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.
	Drain and refill brake hydraulic system.
*	Rear Disc Brake Only — Inspect parking brake linings and drums for wear.
	Repack front wheel bearings.
	Check steering gear for leaks or free play.
*	Auto Transmission — Drain and refill fluid. Replace filter.

INTERIOR VEHICLE OPERATIONS

	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisifactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

EXTERIOR VEHICLE OPERATIONS

	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

Additional Service—refer page 151.

54 Months — 90,000 Kilometre Service

54 Months or 90,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

	UNDER HOOD OPERATIONS
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Wipe inside of distributor cap.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Check torque of carburettor mounting bolts. Check operation of EGR valve, where fitted.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear front and rear.

P.T.O.

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

*Additional Service—refer page 151.

60 Months or 100,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

B SERVICE

60 Months — 100,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 engines — Check operation of vapour separator where fitted.
	Lubricate distributor. Check condition of cap and rotor. Wipe inside of distributor cap. Check TVRS cables for resistance. Replace spark plugs.
	EGR System Only— Clean valve and manifold opening.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Clean PCV intake filter located in air cleaner cover.
	Auto Choke — Check and adjust if necessary settings. Check choke for free operation.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Servicable PCV Valves — Dismantle, clean and re-assemble. Disposable PCV Valves — Test and replace if necessary.
	Clean or replace fuel filter as necessary.
	Drain and refill cooling system. Add specified quantity of inhibitor. Clean radiator core — check for blockages.
*	Air Conditioning Only— Inspect condenser to ensure that it is not plugged with leaves or other foreign material. Check evaporator drain tube for dirt and other restrictions. Inspect flexible hose lines for leaks and brittleness.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Inspect steering gear, linkage and dust covers for wear and security. Notify owner of any deficiencies, including loss of steering preload, for immediate rectification.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.

P.T.O.

	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
	Check operation of transmission shift linkage where applicable. Adjust if necessary.
	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.
*	Inspect front wheel bearings and check adjustment. Repack only if necessary.
	Check steering gear for leaks or free play.

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.
	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

Additional Service—refer page 151.

66 Months or 110,000 km

Dealer .....

Date .....

Odometer .....

Signed .....

A SERVICE

66 Months — 110,000 Kilometre Service

	UNDER HOOD OPERATIONS
	Change engine oil.
	Check all fluid levels accessible in engine compartment, e.g. brake, coolant, washer, auto transmission, power steering reservoir.
	Inspect condition and adjust tension of all engine drive belts. Adjust if necessary using gauge.
	Inspect condition and attachment of all hoses in engine compartment, including all emission systems pipes and connections.
*	V8 Engines — Check operation of vapour separator where fitted.
	Wipe inside of distributor cap.
	Check operation of exhaust heat manifold valve for free operation.
	Inspect engine air cleaner element for restriction and condition. Replace if necessary after testing.
	Check air pre-heat control damper assembly for correct cold and hot operation.
	Check operation of idle stop solenoid.
	Check automatic choke for free operation.
	Check torque of carburettor mounting bolts. Check operation of EGR valve, where fitted.
	Clean radiator core — check for blockages.
	Drain and refill cooling system and recharge with inhibitor.

	UNDER VEHICLE OPERATIONS
	Change engine oil filter.
	Check rear axle oil level.
	Inspect and lubricate front suspension control arm ball joints. Inspect steering joints.
	Check front suspension struts for leaks and damage.
	Lubricate accelerator and transmission shift linkages as applicable.
	Check parking brake operation. Adjust if necessary.
	Inspect exhaust system and adjacent body areas for open seams or damage. Inspect for leaks and damage — brake and fuel lines, shock absorbers and mountings.
	Inspect engine and transmission mountings.
*	Inspect tyres for irregular wear or damage and advise owner, if necessary, of any corrective maintenance required. Check inflation pressures and torque wheel nuts.
	Inspect disc brake pads for wear, front and rear.

P.T.O.

	INTERIOR VEHICLE OPERATIONS
	Check operation of all warning indicators, ignition steering lock, brake and parking brake lights and interior electrical system items and controls. Check all internal lights.
	Check heating, ventilation and demisting system ducts are clear and operation is satisfactory and controls correctly adjusted.
	Seat belt inspection. Examine webbing condition, buckle operation and retractor mechanism function. Notify owner of any deficiencies observed for immediate rectification.

	EXTERIOR VEHICLE OPERATIONS
	Lubricate door handle pivots, door hinges, striker bolts, hood lock and catch and luggage compartment lock as required.
	Check vehicle on the road for even braking and steering, transmission operation, engine response and parking brake operation. Check mirrors, seat adjustment and automatic transmission shift pattern.

*Additional Service—refer page 151.

Suggested Labour Times

For Work Performed During Maintenance Services

"A" SERVICE — BASIC SERVICE TIME — 1.6 HR.
"B" SERVICE — BASIC SERVICE TIME — 3.0 HR.
"C" SERVICE — BASIC SERVICE TIME — 4.4 HR.

THE OWNER WILL BE CHARGED FOR LUBRICATIONS AND MATERIALS USED PLUS LABOUR.
AT THE TIMES RECOMMENDED ABOVE.

ADDITIONS TO BASIC SERVICE

The service times above are for service to a basic vehicle.

Additional time and material required for servicing optional equipment fitted to a basic vehicle must be added to the suggested labour time and charges.

The repairing or replacing of any part found faulty during a service check and not covered by GMH Warranty will be added to the charges.

WHERE ANY DEFICIENCIES ARE NOTED SUCH ITEMS SHOULD BE REPORTED TO THE OWNER/OPERATOR SO THAT THE EXTRA WORK REQUIRED CAN BE AUTHORISED.

*ADDITIONAL SERVICES & TIMES WHERE APPLICABLE:

FIRST "A" SERVICE ..... 0.2 HR.

AIR CONDITIONING — 1st "A" SERVICE..... 0.1 HR.

EGR SYSTEM CHECK — "B" SERVICE ..... 0.2 HR.

FRONT WHEEL BEARING REPACK — "B" SERVICE..... 0.5 HR.

REAR DISC PARKING BRAKE INSPECTION — "A" SERVICE ..... 0.2 HR.

PARKING BRAKE INSPECTION "C" SERVICE 0.6 HR.

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Service Station Information

Fuel

The fuel filler is located above and behind the rear wheel arch on the drivers side. A flap conceals the removable cap and a rubber protection ring surrounds the filler recess to prevent paint damage.

This vehicle is designed to operate on a good quality clean fuel of 97 Octane Rating (Super).

CAUTION: Petrol is extremely inflammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

Engine Hood Lock and Catch

The hood lock is operated in two steps by means of a release lever or handle and a separate safety catch.

To open the engine hood, pull hood lock release handle located beneath the instrument panel, to the right of the steering column. This allows the hood to release but is prevented from opening by the safety catch. To open completely, reach in between the grille and hood to lift safety catch upward. Hold in this position, raise hood and support by inserting support rod into the provided slot. For closing, return support rod to its resting position and lower hood gradually to be finally dropped by its own weight.

Always check to make certain hood is properly secured. If necessary check that release handle below the instrument panel is pushed-in to its normal position.

Filling the Fuel Tank

Overfilling of the fuel tank can affect the evaporative Emission Control System.

To avoid this, the following recommendations are made:

1. Fuel tanks should always be filled at the intermediate or fast fill rate. After initial shut-off (or vent blow back) no further fuel should be added. This retains the tank's ability to accommodate fuel expansion.
2. It is permissible to "trickle fill" fuel tanks where vehicles are to be driven for a distance of at least 50 km shortly after the tank is filled.

Battery

Your vehicle is fitted with a maintenance free battery which you never have to add water to.

Engine Oil Dipstick

Check the oil level as the last operation when stopped for fuel. Maintain oil level between ADD and FULL marks on the dipstick. (Refer to Section 6).

Engine Coolant Level

The vehicle has a coolant recovery bottle as standard equipment. Topping up the fluid should be carried out by filling the bottle to the correct level as indicated on the bottle, with the appropriate coolant solution. See pages 108 and 109.

Maintain the level above the LOW mark on the coolant recovery bottle.

The level in the radiator should be checked weekly, preferably when the engine is cold. See page 111 for checking level and topping up radiator.

CAUTION: Do not remove the radiator cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which is likely to cause serious personal injury.

Windshield Washer

Check reservoir fluid level weekly. Use a washer fluid additive such as Optikleen. (Refer to page 111 for further notes.)

Tyre Pressures

Check pressures at least weekly and adjust as needed. **Refer to Pages 113-114 and to the Tyre Placard located on the inside of the instrument panel compartment.**

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured.
Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to-mouth resuscitation, may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs.
The following notes may help.

- **Part 1. Accident—being involved.**
- **Part 2. Accident—being a witness.**
- **Part 3. Medical assistance.**

Part 1. Accident—being involved

If you are involved in an accident you are advised to do as follows:

Stop immediately.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons. (See Part 3 Medical Assistance.)

Send for police and ambulance if anyone has been injured. Send information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others.

Clear the road of accident debris.

Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property or to his or her representative; to any police present at the scene or to the nearest Police Station.

Try and note all important facts because such details may be important if needed later.

Part 2. Accident—being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident, do this:

Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.

DO NOT stop at the scene of an accident *just to be a spectator.*

Where other people are already in attendance and giving assistance, **you should stop only if you can contribute assistance.**

Give what assistance you can to any injured persons. (See Part 3 Medical Assistance.)

Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

Part 3. Medical Assistance

Keep calm and think clearly.

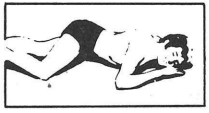
Your experience may not be much but do your best. Don't just stand by and let an injured person die.

- Look after the unconscious person first. Check for breathing. If no breathing, then check if air passages

are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.

Unconscious people can choke.
Carefully turn to one side.
Tilt the head back slightly.
Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

- You must be most careful in moving an injured person. Often it is best not to move at all but, in conditions of danger, that is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.
- Provided it is not dangerous to do so because of other injuries, an unconscious person will do best in the "coma position" illustrated here.



Lay the person on one side and—if it will not aggravate any injuries—then: Bend the uppermost knee until the thigh is at right angle to body.
Bend the uppermost arm and elbow so that the hand lies near the face.
Gently pull the underneath arm so that it rests straight on the ground free of any body weight.

- Try to stop bleeding by applying direct pressure, using your hands, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary, press one pad on top of another. Keep pressure around edges of a wound BUT NEVER USE A TOURNIQUET.

Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm *but not hot.* Best not to give any fluids and NEVER ALCOHOL.

- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending the neck, spine and injured limbs. **Keeping the neck and spine straight is most important.**

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